Notified in G.O's, doted 31st July, 1943.

NOT TO BE PUBLISHED

The information given in this document is not to be communicated, either directly or indirectly, to the Press or to any person not holding an official position in His Majesty's Service.

Small Arms Training

Volume 1, Pamphlet No. 4

BREN L.M.G.

1943

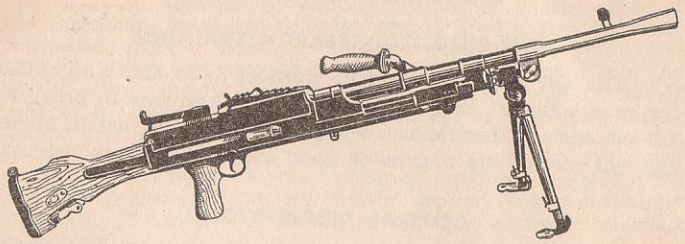
(Modified for Australia)

(This edition cancels the 1939 edition and that reprinted with Amendments 1942.)

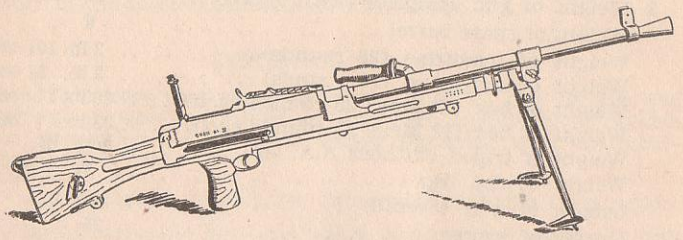
50 M—"Truth"—7/43.

Scale of Distribution

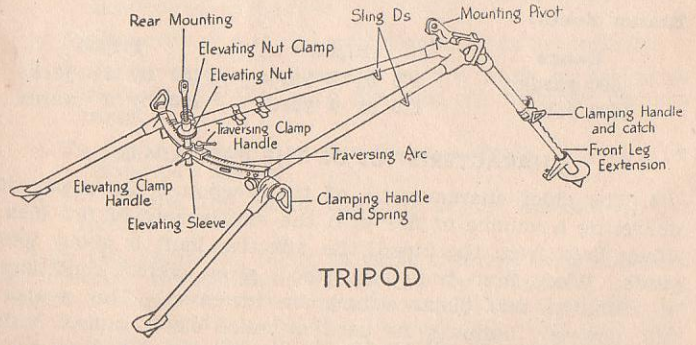
"G" Branch	35
"A" Branch	10
"Q" Branch	10
"O" Branch	35
Adv. L.H.Q.	25
H.Q., Inf. Div.	4
,, Armd. Div.	6
,, Qld. L. of C. Area	4
,, N.S.W. L. of C. Area	4
,, Vic. L. of C. Area	4
,, S.A. L. of C. Area	4
,, W.A. L. of C. Area	4
,, Tas. L. of C. Area	4
No. 11 L. of C. Sub-Area	2
Met. Sqn.	6
Nth. Aust. Observer Unit	17
Cav. Regt.	40
Light Horse Regt.	45
H.Q. Mot. Bde.	30
,, Mot. Regt.	70
,, Army Tk. Bde.	20
,, Armd. Bde.	20
Armd. Regt.	45
Armd. C. Regt.	75
Army Tk. Bn.	45
H.Q. Corps Arty.	1
,, Div. Arty.	1
,, R.A.A. 12 Aust. Div.	1
Fd. Regt. R.A.A.	25
Tk. A. Regt. R.A.A.	65
Medium Regt. R.A.A.	50
Flash Spotting Dtys. R.A.A.	1
Svy. Bty. R.A.A.	1
Mountain Bty.	3
H.Q. Corps or Army Tp. Engrs.	2
H.Q. Div. Engrs.	2
Fd. Pk. Sqn. (Armd. Div.)	4
Fd. Sqn. R.A.E. (Armd. Div.)	6
Fd. Coy. R.A.E. (Div. or Army)	11
Div. Fd. Pk. Coy. R.A.E.	3
Corps Fd. Pk. Coy. R.A.E.	3
Fd. Svy. Coy. R.A.E.	4
Fd. Svy. Sec.	1
Army Tps. Coy. R.A.E.	6
Wkshop & Pk. Coy. R.A.E.	7
Docks Operating Coy. R.A.E.	10
H.Q. Chemical Warfare Gps.	1
Aust. Water Tpt. Gp. R.A.E.	52
Mechanical Eqpt. Coy. R.A.E.	5
Armd. Div. Sigs.	32
Div. Sigs.	8
Army Tk. Bde. Sigs.	1
A Line Sec.	1
An Operating Section	1
Telegraph Operating Section	1
Hy. Wireless Section	1
Light Wireless Section	1
Special Wireless Section	2
A Construction Section	1
Tech. Maint. Section	1
A Line Maint. Sec.	1
An Air Support Control	2
Fd. or Med. Regt. Sig. Sec.	1
H.Q. Inf. Bde.	14
Inf. Bn.	95
Torres Str. Inf.	9
Norfolk Island Inf.	6
Machine Gun Bn.	45
Pioneer Bn.	45
Grn. Bn. (C.D.)	80
Grn. Bn. P.W.	12
Grn. Bn. (Inter. Security H.Q.)	10
Grn. Bn. (Internment Camp)	22
Grn. Coy. (P.W. Officers)	3
P.W. Od. Coy.	6
H.Q. Aust. Bn.	1
Aust. H.Q. Od. Coy.	18
Grn. Bn. (Int. Sec. H.Q. & 3 Coys.)	13
H.Q. Commander A.A.S.C.	1
Gen. Tpt. Coys.	40
Asst. Coy. A.A.S.C.	35
Tk. Tnter. Coy.	20
Armd. Bde. Coy. A.A.S.C.	30
Mot. Bde. Coy. A.A.S.C.	30
Tpt. Pl. A.A.S.C.	5
Army Tk. Bde. Coy.	20
Detail Issue Depot A.A.S.C.	1
Water Car Coy. A.A.S.C.	2
Corps Tps. Amm. Coy.	7
Corps Tps. Pet. Coy.	7
Corps Tps. Sup. Coy.	11
Pack Tpt. Coy.	2
Fd. Bakery	1
L. of C. Area B.I.P.O.D.—	
Queensland	3
N.S.W.	2
Victoria	2
S.A.	2
W.A.	1
Tasmania	2
H.Q. and Section, B.I.P.O.D.	1
Base Supply Depots	6
H.Q. Base Ord. Dep., A.A.O.C.	2
Cent. Ord. Depot, A.A.O.C.	6
Adv. Ord. Depot, A.A.O.C.	2
Army Ord. Fd. Pk.	4
L. of C. Sub-Area Ord. Depot	1
Ord. Store Coy.	3
Div. Ord. Fd. Pk.	2
Ind. Bde. Gp. Ord. Fd. Pk.	1
Army Tk. Gp. Ord. Fd. Pk.	2
N.G. Force Laundry and Decontamination Unit	1
Mob. Laundry and Decn. Unit	1
Mob. Laundry and Fwd. Decn. Unit	1
Army Wkshop, A.E.M.E.	3
H.Q. Base Wkshop A.E.M.E.	2
Army H.Q. Experimental Workshop, A.E.M.E.	1
Adv. Wkshop, A.E.M.E. (L.E.)	2
Div. Wkshop, A.E.M.E.	4
Ind. Bde. Gp. Wkshop, A.E.M.E.	1
Inf. Tps. Wkshop, A.E.M.E.	3



Bren (Mk. I)



Bren Mk. II.



TRIPOD

NOTE.—Earlier patterns of Tripod differ slightly from this type, e.g., Anti-aircraft leg in tube of frame; variation in elevating gear, etc.

GENERAL NOTES

THE OBJECT OF WEAPON TRAINING

1. The sole object of weapon training is to teach all ranks the most efficient way of handling their weapons in order to kill the enemy. Instructors will always bear this fact in mind, and will continually impress it upon those whom they instruct.

GENERAL DESCRIPTION

2. This pamphlet deals primarily with the Mark I Bren. Any differences in the Mark II are dealt with in the lessons concerned.

3. Weight of gun complete (with Bipod) .. .. .. 23 lb.
Weight of spare barrel .. .. 6 „
Weight of magazine (28 rounds) .. .. 2 lb. 10½ oz.
Weight of magazine (20 rounds) .. .. 2 lb. 3¼ oz.
Weight of box (12 Mags 28 rounds each) .. .. 38 lb. 11 oz.
Weight of box (12 Mags 20 rounds each) .. .. 33 lb. 7 oz.
Weight of tripod (without A.A. leg) .. .. 26½ lb.
Weight of A.A. leg .. .. 3½ „
Length of gun (overall) .. .. 45½ in.
Length of barrel .. .. 25 „
Elevation by elevating gear (tripod) .. .. .. 19 degrees
Traverse given by arc (tripod) .. .. 38 „
(Earlier models give a traverse of 42 degrees)

Beaten Zones:

Range	Bipod	Tripod
500 yards	175 by 2 yards	150 by 1½ yards
1000 yards	115 by 4 yards	100 by 3 yards

CHARACTERISTICS OF THE BREN L.M.G.

4. The chief characteristic of the weapon is its power of delivering a volume of fire with the employment of few men. When fired from the bipod, the effective limit is about 1000 yards. When fired from the tripod, given perfect conditions of visibility, this distance may be increased. The weapon will, however, normally be used at much closer ranges, with the object of obtaining full value from the flat trajectory produced.

5. It is an air-cooled weapon, capable of a high rate of fire (automatic or single rounds), and is fired either shoulder-controlled, from a bipod, or from a tripod. To avoid overheating, strain and excessive expenditure of ammunition and at the same time to produce the necessary volume of fire as well as to maintain accuracy, it is best, in employing automatic, to fire in bursts of four to five rounds. Normally, single shot firing will be used, unless the necessity for automatic presents itself. Conservation of ammunition is effected and the presence of an automatic weapon not prematurely disclosed. By means of single shots, very accurate shooting is possible.

The accuracy of the gun permits of only a small margin of error in aiming, range estimation, or wind. Accurate observation of fire, is therefore, essential; if less than four or five rounds are fired in a burst, observation will be possible only in the most favourable circumstances.

SYSTEM OF TRAINING

6. To ensure that the section will fulfil its role in war, the personnel must be trained so that each individual is capable of performing the following duties concerned with the handling of the gun:—

i. To prepare the gun for firing and maintain it in action.

ii. To carry the gun and get it quickly into action on any type of ground.

iii. To fire accurately at various rates up to 112 rounds a minute (i.e., 4 magazines of 28 each) according to the requirements of various types of targets likely to be encountered in battle.

iv. To observe fire and correct its application accordingly.

v. To assist forward movement by fire while at the same time ensuring that such fire does not endanger his own troops.

vi. To fire with effect at low-flying aircraft, normally by "Hosepipe" method.

vii. To perform the duties assigned to any member of the section.

7. In this pamphlet, solely to make training easy, members of a section are sometimes referred to by "numbers". Every man in a section, however, must be an efficient shot with the L.M.G., and in addition be able to carry out every duty that will maintain the gun in action under all conditions. All men, in fact, will be interchangeable so far as duties with the L.M.G. are concerned.

RECRUIT INSTRUCTION

8. The principles of instruction laid down in Pamphlet No. 1 of this series will be followed during instruction in the L.M.G. In addition, the following points will be observed:—

i. When trained personnel are being exercised Battle Order should be worn.
Recruit personnel should wear Battle Order when being trained in Lessons contained in Chapter IV.

ii. The squad should normally be on the left of the gun to watch demonstrations, but they may be moved to the right if necessary.

iii. Practice should be arranged in such a way as to ensure that no time is wasted. This can be done by each individual carrying out a cycle of actions which leaves the gun ready for the next man. Those not actually handling the gun will be constantly questioned so that interest may be maintained. **A further demonstration should be given** when it is apparent that a point is not clear.

iv. Instructors must appreciate that whilst the Lessons are as set out, this does not always imply that the Lesson will be covered in one instructional period. Other periods will also be necessary for practice and revision to obtain efficiency.

9. Instruction in this weapon should be preceded by a demonstration of the weapon's capabilities using live ammunition on the range; this should include firing from the hip (moving) and when possible, "Hosepipe" firing from the waist and thigh. A brief period of introductory instruction (mainly by demonstration), covering the undermentioned aspects of the weapon:—

Method of filling and emptying a magazine.
Method of loading the weapon.
Method of firing the weapon.
Method of unloading the weapon.

followed by the firing of a few rounds (both single and automatic) into a convenient stop butt or safe area, will arouse the recruit's interest and make him eager to learn more of the weapon and how to handle it. This period should not affect the later application of Lessons 1 and 2.

10. When exercising recruits in their later stage of training or trained soldiers all the lessons in Chapters 2 and 3 should be done on rough ground.

TRAINED SOLDIER INSTRUCTION

11. Once men have been trained in the elementary lessons of the Bren L.M.G. it is wrong to repeat these lessons continually under easy conditions. There must be progression. Trained soldiers will therefore be exercised in the more advanced lessons of Chapter 4. During these lessons great care must be taken to ensure that the details learned in the earlier lessons are applied correctly. Special stress will be laid on training on different types of ground and firing from awkward positions. The correct handling of the Bren must be conscientiously practised on all tactical exercises. During Lessons 15 and 16 live ammunition should be fired by all trained soldiers in the advanced stage of training. The enemy should also be provided with live ammunition to fire near anyone making obvious errors of over exposure. Considerable discretion must, however, be exercised in this regard and adequate safety precautions observed. (See S.A.T., Vol. I, Pamphlet No. 1, Sec. 17.)

SAFETY PRECAUTIONS

12. BEFORE ANY LESSON, THE GUN, MAGAZINES, DRILL CARTRIDGES AND POUCH EQUIPMENT WILL BE INSPECTED BY THE INSTRUCTOR.

IMPROVISATION

13. When drill cartridges are not available a halfpenny will make a good magazine platform depressor.

For improvised cover, targets, aiming discs, see S.A.T., Vol. I, Pamphlet 3, General Notes.

CHAPTER I.

HOLDING, AIMING AND FIRING

The importance of correct holding of the gun will be impressed on the soldier from the start, but efficiency cannot be obtained until ball ammunition is fired. Instruction in correct holding cannot, however, be delayed until this period of training, and any tendency to loose holding even during the most elementary instruction must at all times be checked; otherwise failure in marksmanship will result.

LESSON 1.—MAGAZINE FILLING, LOADING, UNLOADING, AND SIGHT SETTING

Instructor's Notes

Stores:—Gun, magazines, drill cartridges (utility pouches at the gun position).

NOTE:—In using drill cartridges in the Bren L.M.G. it is essential to ensure that the gun has been cleared before the ejection opening cover is closed. If the cover is closed and a drill cartridge is left in the breech, when the gun is reloaded the round does not fall through the ejection opening, and as the breech-block moves forward when the trigger is pressed the round is pushed forward into the well at the front end of the slide, and the ejection opening cover jams over it and the gun is put out of action. Should a gun become jammed in this manner, it should be taken to the armourer to be cleared.

If it is known or suspected that a round has been left in the breech, the ejection opening cover must be opened before the cocking handle is pulled back; otherwise the gun may be damaged.

Before the commencement of any period of instruction the Instructor will therefore personally check the gun, and ensure that its condition is satisfactory.

This trouble cannot occur with live ammunition.

If drill cartridges are not available, magazine filling can be taught and practised with empty cases.

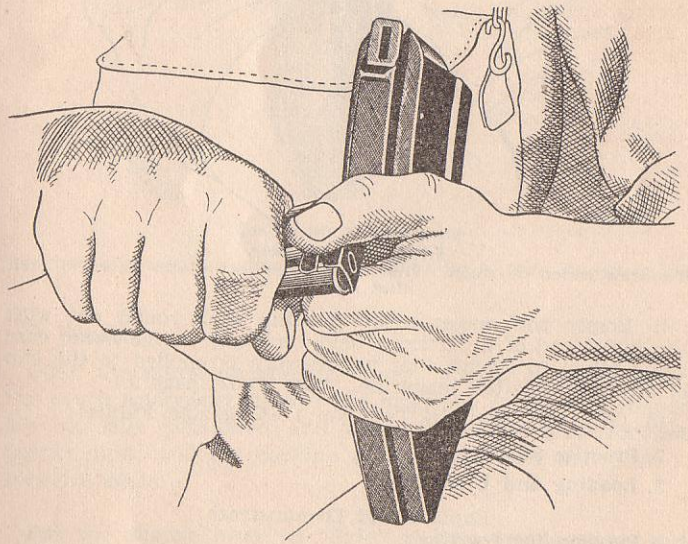
1.—Magazine Filling

Explain and Demonstrate:

i. Hold the magazine in one hand and place each round well back between the lips with the base towards the projections of the magazine platform. Press down and push forward with the thumb. Continue until 28 rounds are filled, ensuring that they are not rim behind rim and the ammunition is clean. Count the rounds carefully.

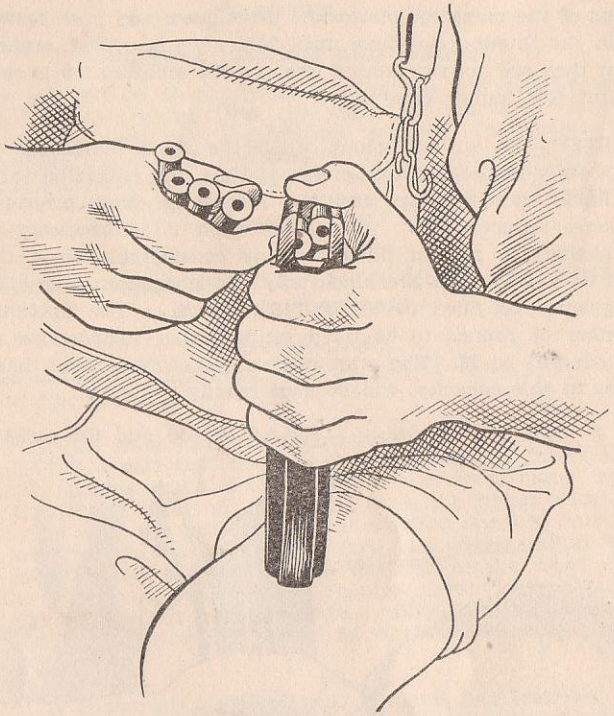
NOTE:—In an emergency when the Bren magazines are kept fully loaded for any length of time, the magazine spring is liable to deteriorate and the magazines may eventually become unserviceable. In future, when it is necessary for magazines to remain filled for any considerable time, they will be loaded with 20 rounds only. In no circumstances will magazines be filled to the full 30 rounds. The maximum number of rounds to be filled until further instructions are issued, will be 28. The ammunition necessary to load magazines to this capacity, will be kept readily available.

(A.C.Is. 630 and 658—1939)



Filling a Magazine—Preliminary

Grip rounds and remove from charger. Magazine and charger held in one hand. Ammunition to be clean.



Filling a Magazine

Magazine rested on thigh. Press each round down with thumb. Count the rounds.

ii. Empty the magazine by pushing each round out with the bullet end of a cartridge held vertically in the hand, care being taken to ensure that no pressure is applied to the cap of any round in the magazine. (See Plate, page 9.)

iii. Give conditions of Test No. 1 (Magazine Filling).

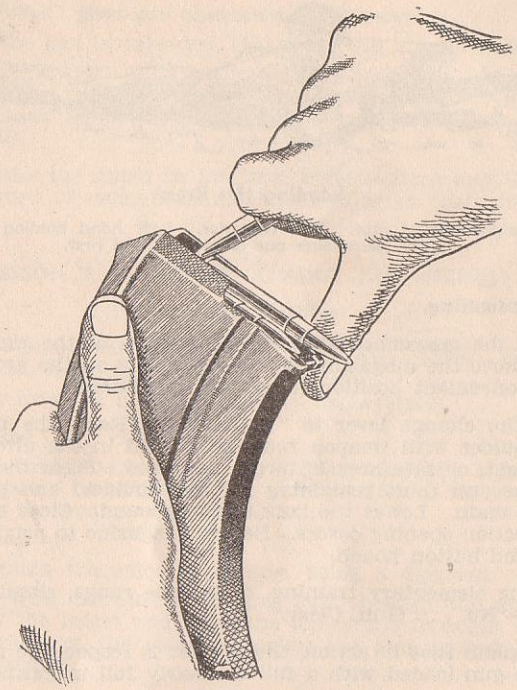
2. **Practise Squad**

3. **Loading and Unloading**

Explain and Demonstrate:

i. **Position for Loading**

Lie down with body straight behind the gun, legs together. Left hand holds small of butt with over-hand grip; right hand holds pistol grip with first finger outside trigger guard. The position of the change lever is immaterial.



Emptying a Magazine

Firm hold of magazine. Nose of round kept clear of cap. Rounds to fall in clean area.

ii. **Loading**

Open the magazine opening cover; take a magazine from the pouch equipment, inspect the magazine to see that rounds are correctly positioned and place it on the gun, forward portion first; pull the cocking handle fully back and push it forward again.

Put the change lever to "Safe" if not already there and button up the pouch. Assume position as in (i). If further magazines are required, they will be taken from the utility pouches.

Loading the Bren

Body straight behind gun. Feet together. Left hand holding small of butt. Magazine put on—front end first.

iii. **Unloading.**

Press the magazine catch with the palm of the right hand and remove the magazine, placing it gently on the ground (or other convenient position if ground unsuitable).

Put the change lever to "Automatic." Raise the butt into the shoulder with weapon roughly aligned in the direction of the target, or safe area if target not used. Press the trigger, cock the gun (butt remaining in the shoulder) and press the trigger again. Lower the butt to the ground. Close magazine and ejection opening covers. Return magazine to pouch equipment and button pouch.

During elementary training, or on the range, stand up and report—"No. . . . Gun, Clear."

4. Explain that in action, the gunner is responsible for keeping the gun loaded with a full or nearly full magazine.

If any orders are not understood, he will call out "Repeat.'

5. Give conditions of Test No. 2 (Loading the Gun).

6. Practise squad (Instructor nominating personnel to act) on commands:—

"Position behind Gun

"Load"

"Unload"

"Rejoin the squad"—"Next" (indicating the next man to be exercised). By this method, members of the squad are kept alert and interest is maintained throughout the period. (See also General, para. 8, iii.)

7. **Sight-Setting.**—Describe the backsight drum and backsight. Turn the backsight drum until required range appears in the window. The drum gives a maximum elevation of 2000 yards and a minimum of 200 yards.

Each "click" gives an alteration of 50 yards.

When the gun is unloaded, the sights will always be lowered.

NOTE.—For Mk. II Bren, raise the backsight leaf, adjust to the range required, leaving the leaf upright. When not in use, lower the leaf. The sight is graduated from 200 to 1800 yards.

8. Practise the squad in Loading, Sight Setting and Unloading by word of command on similar lines to that shown in para. 6.

LESSON 2.—HOLDING, AIMING, AND FIRING

Instructor's Notes:

Stores.—Gun, magazines, drill cartridges, utility pouches, aiming disc, landscape target if necessary.

Holding must be checked at every opportunity.

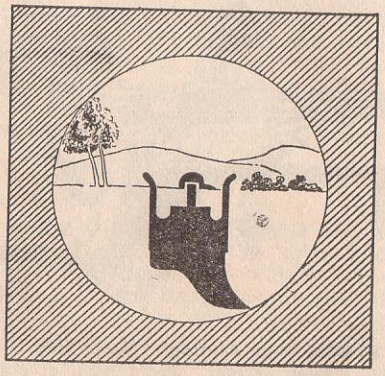
1. **Holding**

Explain that it is essential when firing from the bipod that the gun should be held firmly in order to control the vibration caused by the gun's automatic action.

2. **Aiming**

i. Explain the rule for aiming, using a diagram.

With the sights upright, look through the aperture at the target and align the top of the foresight on the centre of the target, keeping the aim central in the aperture.



CORRECT AIM – SERVICE TARGET

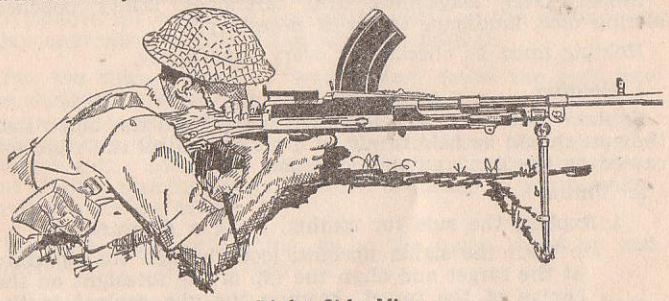
ii. **Aiming Position.**—Explain and demonstrate with gun loaded:—

Put change lever to "A" or "R," raise butt and move shoulder forward to meet it. Put forefinger on trigger and grip gun firmly with both hands, pulling downward and backward into the shoulder. The cheek should rest lightly on the butt. The bipod legs can be adjusted for height if necessary. (This is not possible with the Mark II. bipod).

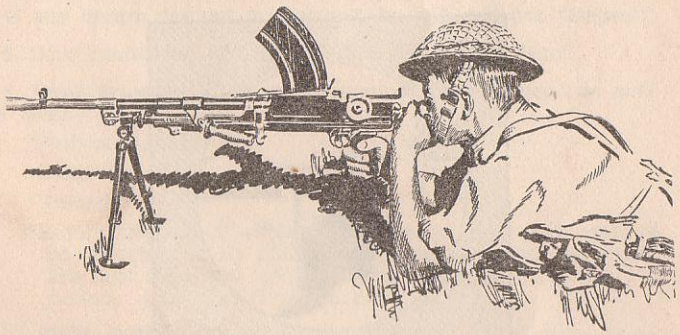
Demonstrate how to use the elbows as a means of obtaining elevation or depression.

"Unload."

3. Instructor with aiming disc, checks each recruit's ability to aim correctly (no magazine on the gun).



Right Side View



Holding and Aiming (Left Side View)

Left hand holding small of butt. Right hand at pistol grip, forefinger on trigger. Check on butt. Left eye closed. Sights upright. Bipod legs vertical. Change lever at "A" or "R." Firm hold with both hands.

4. **Trigger Pressing**

Explain that the trigger has only one pressure, which is shorter for "Automatic" than for "Single Rounds." It must be taken by a squeezing action of the whole hand round the pistol grip. If firing "Automatic" it must be pressed long enough to fire a burst of four or five rounds. If firing "single rounds" it must be fully released after each shot.

5. **Firing**

Explain and demonstrate with gun loaded:—

As single rounds are normal the change lever will be put to "R." If, however, the order is "Bursts" the lever will be put to "A."

The sequence of firing is:—

Aim, fire, observe with minimum head movement, correct elevation or point of aim, if necessary, re-aim.

The rules for aiming off for side winds and aiming down as taught with the rifle must be applied with the L.M.G.

With drill cartridges, the working parts remain forward once the trigger is pressed, but with live ammunition they would remain back on the trigger being released.

6. Give conditions of Test No. 3 (Aiming and Firing).

7. Practise squad.

8. **Rates of Fire and Moving Enemy.**

Explain:

i. **Slow**—About one magazine per minute. Correct holding must be maintained throughout each burst.

ii. **Single Rounds**—Up to one magazine per minute. Each shot must be well aimed and fired, and if possible, to simulate rifle fire.

iii. **Rapid Fire**—Four magazines per minute. Bursts of normal length, but minimum intervals between to allow observation and correction. Accuracy must be maintained.

The above are standards which can be reached with practice.

iv. **Moving Enemy**—It is not possible to swing with the L.M.G. when mounted on the bipod and, therefore, a point ahead of the enemy will be chosen and fire opened just before he closes to the estimated lead. This must be quickly repeated, each burst consisting of eight to ten rounds. Correct holding must be maintained and the elbows must not be moved.

9. Practise squad in complete lesson.

CHAPTER II.

STRIPPING, CARE AND MAINTENANCE: MECHANISM

1. In the following lessons the instructor will explain and demonstrate the stripping and assembling of each group. The parts will be named and the squad frequently questioned about them.

2. After stripping and assembling, the correct functioning of the parts will be tested by cocking the gun and pressing the trigger. Excessive stripping causes undue wear to the various parts of the gun and lessens its efficient functioning. Therefore, stripping, other than that required for efficient instruction and necessary cleaning, will be avoided. Stripping and assembling against the clock will never be practised.

3. All maintenance should be carried out under the supervision of an N.C.O. unless the men are trained soldiers.

4. During extremes of cold, the following should be noted:—

i. Ice.

ii. Frozen oil or grease.

iii. Snow.

Counter-measures—

Ice.—Keep the gun dry. Ice which has formed should be removed by melting and the weapon thoroughly dried.

Frozen Lubricants.—The lower the temperature, the less the gun should be lubricated. Below minus 20 degrees centigrade the weapon should be thoroughly cleaned by washing in petrol, if available, and then re-lubricated with oil, low cold, test. If this is not available the weapon should be left dry.

Snow.—Prevent the working parts from coming in contact with snow if possible. It is a serious enemy to the correct functioning of all small arms, especially L.M.Gs. If snow has stuck to the outside of the weapon, remove it by scraping. If inside the barrel, by melting.

LESSON 3.—THE PISTON AND BARREL GROUPS

Instructor's Notes.

Stores.—Gun, combination tool, drill cartridges.

Only those parts of the gun will be named which are dealt with in future lessons.

Piston Group.

1. Explain and demonstrate stripping and assembling:—

i. Cock the gun and press the trigger.

ii. Push out body locking pin and draw butt back to its fullest extent. (In the Mark II, draw back approximately half-way.)

iii. Holding the return spring rod slightly to the left, draw back cocking handle sharply and push it forward.

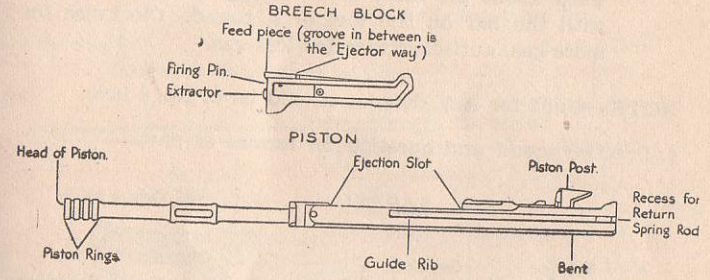
iv. Remove piston and breech block from gun.

v. Remove breech block from piston.

vi. Remove extractor stay and spring and extractor.

vii. Name the principal parts of the piston group.

viii. Assemble in reverse order.



THE PISTON GROUP

2. Practise squad in stripping and assembling, questioning on names of parts.

Barrel Group.

3. Explain and demonstrate stripping and assembling.

i. Cock gun.

ii. Disengage barrel nut catch and rotate barrel nut to its fullest extent.

iii. Raise the carrying handle, push forward and remove barrel group.

NOTE.—Explain that on service the barrel is normally changed after firing ten magazines at the rapid rate. This duty is usually carried out by the No. 2, when ordered by the No. 1, who would first remove the magazine.

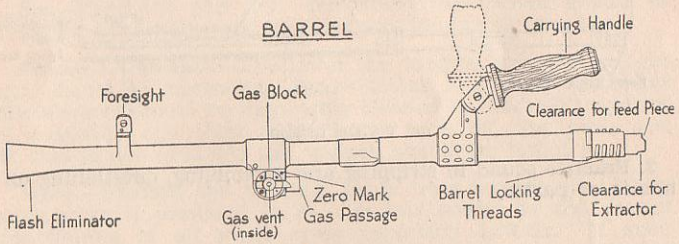
iv. Push retainer pin flush with the regulator with the base of a round, turn gas regulator and remove.

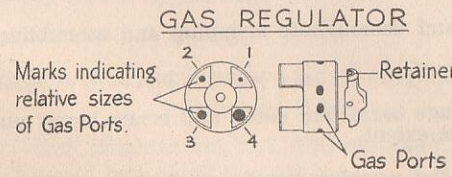
v. Name the principal parts of the barrel group.

vi. Assemble in reverse order, ensuring that the retainer pin is pushed through, the regulator is set to the smallest hole which gives reliable functioning and the gas cylinder locking bar engages in the recesses of the gas regulator. Show how gas regulator may be altered to a larger or smaller hole, by easing the barrel forward about an inch, and turning the gas regulator with the bar on the tool or a round. Clockwise for more gas, anti-clockwise for less gas.

NOTE.—Guns for A.A. defence should be at No. 4 hole.

4. Practise squad and question on names of parts.





THE BARREL GROUP

LESSON 4.—BUTT, BODY, AND BIPOD GROUPS

Instructor's Notes.

As for Lesson 3.

Explain and demonstrate stripping and assembling:—

1. **Butt Group.**

i. Cock gun and press trigger.

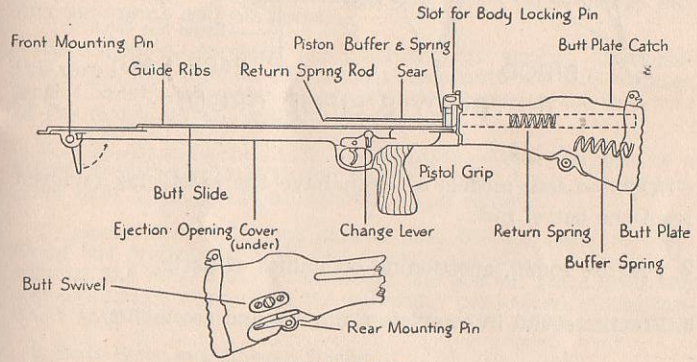
ii. Push out body locking pin.

iii. Disengage barrel nut catch, and rotate barrel nut to its fullest extent.

iv. Holding the body, slide off butt (ensuring that the piston group does not slide out.)

v. Name the principal parts of the butt group.

vi. Assemble in reverse order.



THE BUTT GROUP

2. Practise squad, questioning on names of parts.

3. **Body Group and Bipod.**

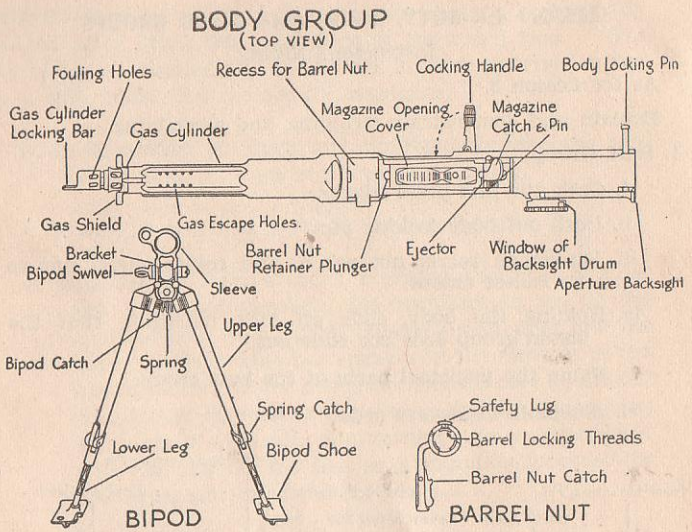
i. Remove piston, barrel and butt groups.

ii. Press down barrel nut retainer plunger and withdraw barrel nut.

iii. Turn body to the left and withdraw from bipod sleeve.

iv. Name principal parts of body group and bipod.

v. Assemble in reverse order.



THE BODY & BIPOD GROUP

NOTE.—Later models of Bren have the safety lug removed from the barrel nut.

4. Practise squad, questioning on names of parts.

5. Practise squad in complete stripping and assembling.

GENERAL NOTE.—Training in stripping and assembling cannot be regarded as completed until men have reached a reasonable standard under:—

i. Blindfold conditions, where the instructor is able to guide and correct the errors committed and so obviate damage to the equipment.

ii. Under conditions of total darkness, where the man receives no assistance from the instructor.

The instructor should ensure that, before commencing any operation, the man concerned is placed in such a position with relation to the gun and gear as to obviate the possibility of an accident when blindfolded or working in darkness.

LESSON 5.—ADDITIONAL STRIPPING

Instructor's Notes.

Stores.—Gun, magazines, drill cartridges, combination tool.

Explain that it will be necessary at times to take down parts of the gun which are not stripped in ordinary cleaning, in order to deal with possible breakage of parts or for thorough cleaning after a gas attack.

Explain and Demonstrate:—

1. Magazine Platform.

To Strip.—Press in the stud on the bottom plate of the magazine and slide it off, controlling the spring as it comes out. Lift out spring and platform.

To Assemble.—Replace the platform and spring. Compress the spring and slide on the bottom plate until the stud engages in the hole in the plate. A tap with the hand on the thin side of the magazine will assist it to engage.

NOTE.—To strip the Mark II magazine.—With the nose of a bullet, depress the stud in the bottom plate. Draw the bottom plate back slightly, lift off sideways and remove.

To Assemble.—Slide one side of the bottom plate forward along the projection, until the detents are clear of the inside edge of the magazine. Press down the bottom plate until the opposite flange engages in the necessary projection. Slide forward until the stud engages in the recess in the bottom plate.

2. Butt Plate and Return Spring

i. Butt Plate.

To Strip.—Place the nose of a bullet on the butt plate catch close to the butt plate, and tap the base of the cartridge with the hand. Remove the butt plate.

ii. Return Spring.

To Strip.—Ensure the working parts are forward. Insert the combination tool so that the recesses engage in the projection on the return spring cap. Press in, turn one-quarter turn to the left, and carefully withdraw the return spring and rod.

To Assemble.—Insert the rod and return spring in their housing. Compress the spring by means of the cap held in the combination tool. Guide the spring with the fingers, being careful not to distort it. Press in the cap and turn to the right to lock.

iii. **Butt Plate.**

To Assemble.—Engage the stud on the toe of the butt plate with its recess on the toe of the butt, and lift the butt plate firmly upwards and forwards, pressing the catch with the finger of the other hand.

NOTE.—To remove the return spring of the Mk. II Bren.—Unscrew the large screw in the centre of the butt plate, using the combination tool or a screwdriver. This does not necessitate the removal of the butt plate.

3. Practise squad in stripping and assembling the magazine platform, butt plate and return spring. Question squad on stripping and names of parts.

4. **Firing Pin.**

To Strip.—Press out the retainer pin, taking care that the firing pin does not jump out of the back of the breech block.
To Assemble.—Hold the spring in compression with the recess for the retainer pin corresponding with the retainer pin hole. Replace the retainer pin.

5. **Magazine Catch and Ejector.**

To Strip.—Cock the gun, press the point of the magazine catch pin and withdraw to the right to a stop. Slide magazine catch and ejector forward. To separate, squeeze the magazine catch and ejector together to compress the spring, slide the magazine catch back along the ejector and lift off.

While the magazine catch and ejector are off, the magazine opening cover can be removed by sliding to the rear.

Assemble in reverse order.

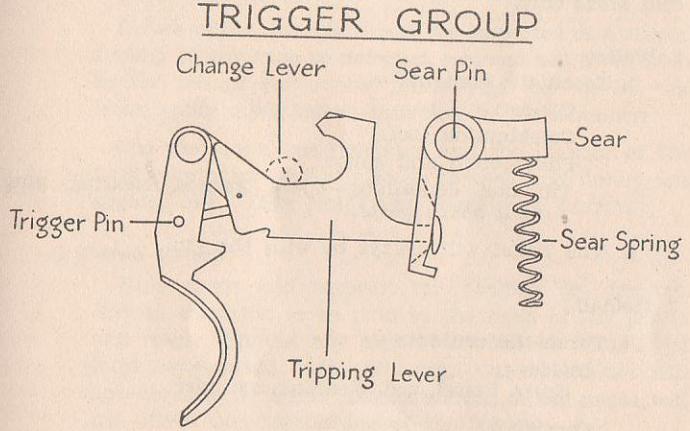
6. Practise squad in stripping and assembling the firing pin, magazine catch and ejector. Question squad on stripping and names of parts.

7. **Trigger Group.** (For N.C.Os and Potential Instructors only.) (This stripping can be facilitated if the return spring is first removed.)

To Strip.—All pins are removed from right to left. Press out change lever. Press out sear pin and remove sear and spring. Raise tripping lever, press out trigger pin, and remove trigger and tripping lever. Do not strip further than this.

To Assemble.—Keep trigger in position by holding tripping lever vertical and replace trigger pin. Place sear and spring in position, with the end of the tripping lever through the slot in the sear, and insert sear pin. Hold down tripping lever slightly and press in change lever.

Practise N.C.Os, etc., in above actions. Question on names of parts.



LESSON 6.—CARE AND MAINTENANCE

Instructor's Notes.

Stores.—Gun, magazines, spare barrel, cleaning kit, drill cartridges, Holdall complete, Tripod (when available).

The cleaning kit may comprise the undermentioned articles:

Rod, cleaning, M.G. Mk. II.

Pullthrough, double, with gauze.

Pullthrough, single, with gauze.

Spare gauzes.

Rod, cleaning, cylinder.
Brush, wire.
Mop.
Combination tool.
Oil container.
Flannelette.
Graphited grease.
Oil, low, cold, test.

The articles will be described and their use explained. The rod, cleaning, M.G., will normally be the issue for Australian equipment. In such case, the single pullthrough may not be issued. Oil, low, cold, test, is issued for operations in extremely cold areas only.

1. **Wallet**

i. Teach the contents—

Oil can.
Combination tool.
Pullthrough and gauze.
Tin box containing—spare gauzes, clearing plug, small spare parts.

ii. The wallet will always be with the gun.

2. **Holdall**

i. Teach the contents—

Inside—
Spare barrel, rod, cleaning, cylinder.

Outside—
Top left pocket—spare breech block (if issued).
Top centre pocket—mop and wire brush; extra pullthrough (if issued).
Top right pocket—graphited grease in oil bottle.
Centre pocket—filled wallet.
Bottom pocket—oil, low, cold, test—in tin.

ii. The holdall will always be with the gun when it is disposed in a defensive position.

3. **DAILY CARE AND MAINTENANCE**

Order a selected member of the squad to completely strip the gun.

Explain and Demonstrate:

i. **Barrel Group**

Clean both barrels, using the cleaning rod (if issued). A dry piece of flannelette, 4 by 2 inches, being placed in the eye of the rod and adjusted so that it covers the forward end. Rod to be inserted from the breech end so as to compress the flannelette. When clean, the barrels will be left oily, a slightly smaller piece of flannelette, well oiled, being used for the purpose. Where the rod is not available, a piece of flannelette, 4 by 3 inches, will be used in the loop of a pullthrough to clean the barrel; a slightly smaller piece being used for the final oiling.

Before oiling, barrels should be inspected and should fouling of any type be detected, removal will be effected by the use of the double pullthrough and gauze, the latter being oiled before insertion in the chamber.

The gas block, gas regulator and the interior of the flash eliminator should also be cleaned and finally left slightly oily. (See Notes (A) Damage to Barrels.)

ii. **Piston Group**

Wipe clean and inspect for fouling or damage. Special attention to be paid to the head of the piston and rings. Should any sign of fouling be detected it must be removed, using oily rag. On no account will any abrasive be used. Discolouration of the metal will not affect the functioning of the weapon.

The face of the breech block and firing pin hole should be inspected and any fouling removed by means of an oily rag.

Lightly oil all parts with an oily rag. (See Notes—(B) and (C)—Damage to Piston Head, Erosion to Breech Block.)

iii. **Butt Group**

Wipe clean and inspect for damage, finally leave all portions lightly oiled. The return spring should be inspected and left in a lightly oiled condition.

iv. **Body Group**

Wipe clean and inspect. If fouling detected in the cylinder it should be removed, using the cleaning rod, wire brush and mop, the latter being covered with a piece of dry flannelette, 4 by 4 inches. When clean, the cylinder should be left oily, using the pullthrough fitted with a well oiled piece of flannelette of the same dimensions. Dirt or fouling in the holes at the end of the cylinder may be removed, using the nose of a drill cartridge.

When using the wire brush, the handle of the rod should be inserted from the breech end and the brush oiled before insertion. Free working is facilitated by turning the rod clockwise.

The interior of the body will be left lightly oiled and the exterior wiped over with a lightly oiled rag so as to prevent the formation of rust.

v. **Bipod Group**

Wipe clean and inspect for fouling or damage. If fouling detected in sleeve, etc., remove with oily rag. Leave all portions lightly oiled.

Have weapon assembled by selected member of squad.

vi. **Magazines**

Wipe clean and inspect for condition, particularly with reference to platforms. Should interior of magazine require attention, strip and clean. Interior of magazines should be left lightly oiled; exterior wiped over with a lightly oiled rag only.

vii. **Tripod (where issued)**

Wipe clean, mentioning parts as dealt with. Particular attention paid to traversing arc, elevating gear and mounting connections. Leg joints should be inspected for damage and left in a clean condition. Leave bearing or frictional surfaces lightly oiled, using a suitable piece of lightly oiled rag.

Practise squad in above phases and question.

4. **Preparation Before Firing.**

Explain:

The weapon should be completely stripped down, all portions cleaned and inspected, any fouling, etc., detected being removed. The following portions should be wiped dry:—

Interior of barrel, and portions affected by gas.

Gas cylinder.

Bipod sleeve.

Head of piston and rings.

Face of breech block.

The interior of the body and the frictional surfaces should be lightly oiled. Graphited grease should be applied to the locking shoulder and the inside portions of the breech block, also to the corresponding portions of the piston extension and post.

The exterior of the weapon should be wiped free of any oil, particularly the forward portions. The return spring should be oiled; this can be done by gently pushing back the spring rod and allowing a little oil to run through the rod hole. Overoiling must be avoided.

When operating under conditions of low temperature, ordinary G.S. oil tends to thicken and the gun will not function satisfactorily until warmed up. Also, in areas where fine dust and sand exist, oil combines with it and tends to clog the mechanism. Graphited grease does not clog the mechanism when applied correctly under any circumstances. When operating the gun under adverse conditions, it should be prepared as under:—

Strip the weapon; clean all parts and leave them dry.

Apply a THIN coating of graphited grease to frictional and sliding surfaces ONLY (except piston rings).

Use no oil whatever.

Magazines should be inspected, checked for damage or distortion and cleaned before being filled. Those that are normally kept filled should be emptied, the ammunition and magazines being inspected and cleaned, if necessary, before being refilled.

Spare parts and tools, etc., should be inspected and their correct condition ensured. Where the spare barrel is likely to be required, it should be prepared in a similar manner to that adopted for the barrel in the gun.

The condition of the tripod (when available) should be checked and its satisfactory performance ensured by cleaning, etc.

5. Attention during intervals in firing.

Unload. Lubricate the working parts. It may be found that the gun becomes stiff in the bipod sleeve after a period of firing. To correct this condition, rotate the gun in the sleeve at intervals. (This action is not necessary with the Mk. II Bren.)

If firing from the tripod, the bipod catch is positioned and the bipod itself rotated from the left side, to free the sleeve.

Should a hot barrel be removed from the gun it can be quickly cooled by placing it in water (if available). Care should be taken to avoid the steam blast, also to ensure that all traces of water are removed from the bore before replacing it in the gun.

Check up ammunition and fill partly used or empty magazines.

6. Attention after Firing.

Unload.

If conditions do not allow complete attention, e.g., rifle range practices, field training operations, etc., the bore and all gas affected portions should be liberally oiled before the weapon cools.

The weapon should be thoroughly cleaned at the first opportunity, being stripped down and all portions dealt with as laid down (para. 3). Water, preferably boiling, will be found useful for cleaning the bore, but all traces of water must be removed and the barrel thoroughly dried out and cooled before the final application of oil is applied. Gas fouling will be easily removeable by the use of oily rags if action is taken whilst the parts are still warm. Where fouling has been allowed to remain for some time, it may be necessary to soak the area affected with kerosene, to loosen it.

The barrel and gas affected portions may require attention for some days after a period of firing. The use of Oil "A" (anti-corrosive) will obviate this attention.

When thoroughly clean and sufficiently cool, the weapon should be left with a slight film of oil over all internal portions, the exterior being wiped over with a lightly oiled rag.

Magazines should be emptied if not required for further immediate use; cleaned and left with a slight film of oil covering.

Spare parts used should be replaced at the first opportunity, and all items left in a clean and slightly oiled condition. The tripod (if used) to receive normal cleaning and inspection.

A record should be maintained of the weapon's performance, the type of stoppage or breakage and the number of rounds fired being included. Where Armourer's attention is required, this should be arranged at the first available opportunity.

Practise squad in above phases and question.

7. Action During and After Gas Attack.

i. During.

To keep the weapon in working order all parts should be well oiled. If not actually used for firing, the working parts should be frequently moved to prevent them sticking.

ii. After.

If splashed with blister gas, the weapon and all associated stores must be decontaminated, as follows:—

Rub anti-gas ointment into the hands; leave a visible film of ointment on the hands.

Unless the sling is heavily contaminated, it should remain on the weapon, all free liquid being removed with a swab and ointment applied to the contamination on both sides of the sling.

Remove all free liquid from the weapon with any available swab (grass, etc.). The personal issue of cotton waste should not be used.

Rub the contaminated portions with anti-gas ointment vigorously. The ointment should be rubbed well into any woodwork.

Remove ointment from metal portions with a swab and re-oil. Do not remove the ointment from woodwork.

Wipe off surplus ointment from the hands with cotton waste, then rub more ointment into the hands for half a minute.

Clean the weapon thoroughly at the first opportunity.

Should ammunition be affected, swab off free liquid and use the affected ammunition at the first opportunity.

Practise squad in above operations and question.

NOTE.—Wear and damage to certain components result through excessive cleaning, i.e., attempts to preserve a "mirror finish" on piston head, etc. It is essential that a good fit is maintained between the bipod sleeve and the gas cylinder, also between the nose of the gas block and the gas cylinder. The use of abrasives, steel scraping implements of any kind or any method which removes metal when cleaning surfaces which are required to fit tightly, is strictly forbidden. In the majority of cases it is necessary only to clean the parts in question with an oily rag, leaving the surface oiled to prevent rust.

G.R.O. 0182/1942

(A) Damage to Barrels

1. Damage to rear end of barrels is due to 2 causes:—

   i. When the fixed collar of the cleaning rod comes forcibly into contact with the rear end of the barrel—

      (a) at the 2 breech block stops, and

      (b) at that portion where it joins the "extractor way."

   ii. When, due to mal-ejection, the wall of the base portion of the fired cartridge case is driven forcibly against the extractor way proper.

2. The rubber bush (already authorised) fitted to the cleaning rod will prevent damage as in (i) above.

When a gun fires "doubles" or "automatic" with the change lever set at "R," this indicates that more gas power is required but, before adjusting the gas regulator, it should be ascertained that the limited backward movement of the recoiling portions is not due to other causes, e.g., improper lubrication or excessive friction.

3. Should the gas regulator not be adjusted to give increased gas power, there will always be the possibility of the chamber becoming damaged as described in (ii) above.

The following action should be taken in such cases of damage:—

(i) The high spot should be removed by scraping, care being taken that no more metal is removed than is necessary, to avoid the possibility of undue expansion of the fired case.

This repair is to be effected by A.A.O.C. Armourers **ONLY.**

(ii) Troops should be instructed to set the gas regulator to the next larger hole to prevent a recurrence of the damage.

(B) Damage to Piston Head.

1. With careless assembly of the piston group, damage is likely to occur to the head, through it striking the lower part of the breech block stops and the barrel locking nut lug, also the rear end of the gas cylinder.

2. On all occasions therefore when assembling the piston group, care is to be exercised that the head does not foul the above-mentioned parts of the body. This can be effected by supporting the piston head with the fingers of one hand whilst inserting it. If burrs are detected on the piston head, the services of an A.A.O.C. Armourer are to be obtained to effect repairs.

(C) Erosion of Breech Block.

1. Cases have occurred of the firing pin hole in the breech block having become rapidly eroded, although the total number of rounds fired was negligible. Investigation has shown that this condition is entirely due to the ammunition being oiled to accelerate the rate of fire, with a view to improving unsatisfactory firing performance.

2. This practice will render the breech blocks unserviceable and must cease forthwith. Commanding Officers are to take action accordingly.

3. As soon as possible after firing, unit armourers should examine breech blocks, and, if necessary, the fired cases. If the ammunition has been oiled previous to firing, the rim of the fired case, where it is unsupported by the breech block at the moment of firing, will be definitely "set back," and the cap may be loosened or blown back.

Cases of this nature should be immediately reported to the unit C.O. with a view to action, vide para. 2 above.

REMEMBER.—In any campaign, the weapon is only fired at intervals, but IT MUST BE CARED FOR AND MAINTAINED ALL THE TIME, so that it will produce the requisite performance when you do open fire. Experience in the past, and in the present campaign, has shown that efficient fighting men regard the condition of the weapon as being of greater importance than their own personal comfort. It is their "Insurance Policy!"

LESSON 7.—MECHANISM

Instructor's Notes.

Stores.—Gun, magazines, drill cartridges, empty case.

During the lesson the gun will remain with the butt drawn back, and the piston, breech block, magazine catch and ejector removed, only being assembled when it is necessary to emphasize any action.

Explain, demonstrate the action, and ask questions at the end of each phase.

1. Backward Action

Some of the gases following the bullet pass through the gas vent and gas regulator into the gas cylinder. This forces the piston to the rear and compresses the return spring until the piston is stopped by the piston buffer. The empty case, being gripped by the extractor, is carried to the rear on the face of the breech block until its base meets the ejector. The case is then ejected downwards through the ejection slot in the piston.

2. Forward action.

The piston, having been stopped by the piston buffer, is forced forward by the return spring, carrying the breech block with it. The feed piece meets the base of the first round in the magazine and forces it forward into the chamber, the extractor closing over the rim.

The piston post in its final move forward drives the firing pin against the cap of the cartridge, thus firing the round.

3. Trigger action.

With the change lever at "A," pressure on the trigger disengages the sear from the bent on the piston, and the piston is allowed to go forward. As long as the trigger is pressed, the gun will continue to fire, but, if the trigger is released, the bent will engage with the sear the next time the piston comes to the rear, stopping its forward movement.

With the change lever at "R," the trigger must be pressed each time a shot is to be fired, because the piston is held back after each round. This is caused by the rear part of the piston bearing on the tripping lever during the forward action, causing the sear to rise.

With the change lever at "S," the trigger is disengaged from the sear, and the gun cannot be fired.

If pressure on the trigger is maintained while the change lever is altered from "Safe" to "Automatic" and then released and the trigger pressed again, the gun will not fire. The change lever, therefore, will not be altered when the trigger is pressed.

4. Empty magazine.

If the magazine is empty, instead of meeting the base of a round, the feed piece on the breech block meets the rear of the magazine platform, and the action cannot go forward. On releasing the trigger and removing the magazine, the piston and breech block go forward until the bent on the piston meets the sear. The action is thus cocked in readiness for another magazine to be placed on the gun and firing to continue.

NOTE.—The Mark I Bren cannot be loaded or fired unless the barrel nut catch is correctly engaged.

CHAPTER III.

IMMEDIATE ACTION, STOPPAGES, HANDLING (BIPOD AND TRIPOD) FIXED LINES

1. The characteristics of the L.M.G. and its maintenance in action demand the performance of special duties by certain men of the section. (See General Notes, paras. 5 and 6.)

2. In handling (bipod and tripod) every man of the section is trained in the duties of Nos. 1 and 2. The lessons are designed to exercise the gunner, either alone or with an assistant. In action, the wallet will always be with the gunner or his assistant.

3. Each L.M.G. is provided with a tripod, for the purpose of firing on "Fixed lines" or between "Fixed limits" during darkness, smoke or fog.

4. Overhead fire should not be attempted unless exceptionally favourable conditions exist, and then only per medium of the tripod.

5. When each man has had sufficient practice to enable him to carry out instinctively the correct action on any given command, the instructor will introduce handling exercises.

The object of these exercises is to quicken all numbers of the section in the handling of the L.M.G. Accuracy must not, however, be sacrificed for speed.

These exercises should include all types of fire, immediate action, stoppages, use of cover, etc. No stripping and assembling against time will be carried out.

6. The tripod can also be adapted for use as an anti-aircraft mounting, for use in static positions, utilising either the special A.A. leg (if fitted to the tripod) or a service rifle as a final support. (See Appendix II.)

LESSON 8.—IMMEDIATE ACTION

Instructor's Notes.

Stores.—Gun, magazines, wallet, drill cartridges, landscape target (only if ground itself is unsuitable for defining targets).

The causes of stoppages will not be taught until the men are proficient in Lessons 8 and 9. They will then be explained as set out in the summary on pages 22 and 23.

1. Explain that, if the gun is properly balanced, e.g., gas and spring effects, efficiently maintained and magazines correctly filled, stoppages other than an empty magazine will rarely occur; also that I.A. is the instinctive action performed by the gunner whenever the gun stops or fails to fire. It must be carried out quickly, and with practice should become an automatic action, by day or night. I.A. is not complete until the gun has been re-aimed and fire opened.

2. Explain and demonstrate (Instructor giving himself the necessary Fire Order and specifying the various stages, i.e., "Gun firing all right," "Gun stops," "Gun firing all right" or "Gun does not fire," "Gun firing all right"):

i. I.A.—Cock the gun (butt remaining in the shoulder). Remove, examine and change the magazine if necessary. Aim. Fire.

ii. Question the squad on actions performed.

iii. Repeat the I.A., illustrating the "service pace" of the actions.

iv. Practise the squad by word of command, ensuring that correctness of action is not sacrificed for speed.

3. Explain and demonstrate (as in para. 2):

If, after I.A., the gun fires one or two rounds and stops again:—

i. Cock the gun and remove magazine, press trigger, cock gun. Lower the butt to the ground. No. 1 will disconnect the barrel and adjust the gas regulator to the next largest hole—replace the barrel—place magazine on, aim and fire.

ii. Question the squad on actions performed.

iii. Repeat the I.A.—illustrating the "service pace" of the actions.

iv. Practise the squad by word of command, ensuring that correctness of action is not sacrificed for speed. Commands should be (after initial fire order):—

"Gun firing all right."
"Gun stops"

(I.A. applied.)
"Fires 1 or 2 rounds and stops again."

(Action as in para. 3, i, applied.)
"Gun firing all right."

v. Explain that this stoppage will rarely occur with a properly balanced gun.

vi. Give conditions of Test No. 4 (Immediate Action).

LESSON 9.—STOPPAGES

Instructor's Notes.

Stores.—As for Lesson 8.

Lesson will start with a recapitulation of Lesson 8.

A clearing plug will be used for the instructor's demonstration, but not for squad practices. A drill cartridge will be used for this purpose.

1. Explain and demonstrate (as in previous phases):—

If, after I.A., the gun will not fire:—

Cock the gun and remove magazine. Lower butt to ground.

Examine for obstruction in the body or chamber.

(A) If obstruction in the body, such as a jammed round or empty case, remove it—put magazine on, aim and fire.

i. Question squad on actions performed.

ii. Repeat the I.A.—illustrating the "service pace" of the actions.

iii. Practise the squad by word of command, i.e. (after initial fire order):—

"Gun firing all right."
"Gun stops."

(I.A. applied.)
"Will not fire."

(When firer examines weapon.)
"Obstruction in body."

(When simulation of action of removal completed.)
"Gun firing all right."

(B) If no obstruction in the body—insert the clearing plug into the chamber—raise butt to shoulder—press the trigger—cock gun, removing clearing plug and separated portion—put magazine on, aim and fire.

i. Question squad on actions performed.

ii. Repeat the I.A.—illustrating the "service pace" of the actions.

iii. Practise the squad by word of command as in (A), specifying "Obstruction in chamber" in lieu of "Obstruction in body."

2. Explain causes of Stoppages (vide Summary).

3. Training in the correction of Stoppages cannot be regarded as complete until all men can carry out the necessary actions (excluding aiming) blindfolded or in darkness. (See General Note to Lesson 4.)

SUMMARY OF CAUSES

The following table is for instructors, who, using it in conjunction with Lessons 8 and 9, should teach the causes of stoppages when the man is proficient in these lessons.

Ref.	Possible cause of stoppage.	How to teach cause of stoppage.
Lesson 8, para. 2.	i. Empty magazine. ii. Badly filled magazine. iii. Misfire. iv. Faulty ejection. v. Hard extraction.	Explain and, where necessary, demonstrate the effect of no ammunition in the magazine. (Lesson 7, para. 4.) Explain and demonstrate overlapping rims. Explain "No gas." Explain empty case in body. Explain hard extraction, force of the gas absorbed in extracting empty cases; not enough left to drive working parts to the rear.
Lesson 8, para. 3.	Insufficient gas.	This stoppage will not occur when a gun is properly balanced, i.e., gas regulator correctly adjusted. Care must be taken not to start with too much gas, or excessive strain and unnecessary hammering of the working parts will occur. Explain that, through lack of gas, the breech block may not be forced back far enough to engage behind the next round in the magazine or with sufficient force to ensure complete ejection of the empty case.
Lesson 9.	A. Obstruction caused by mechanical breakdown. B. Separated case.	Not set up. Explain that a separated case in the chamber is a very rare occurrence, but can be removed by the use of the clearing plug.

LESSON 10.—USE OF COVER

Instructor's Notes.

Stores.—Gun with sling attached, magazine on gun, gun placed in rear of the position.

Ground containing suitable types of cover must be chosen before the lesson.

1. **Introduction.**
Question squad on points taught in using cover (Rifle), and explain that the same principles must be applied with the L.M.G., i.e., a good fire position should:—

Permit free use of the weapon.

Have a good field of fire.

Be inconspicuous.

Be bullet proof if possible.

Be easy to move from.

The two main points for the gunner to remember when using the weapon from cover are:—

i. Correct resting of the weapon, if firing without the bipod, e.g., ejection opening clear of the cover, muzzle clear of the ground surface to avoid "dust blast."

ii. No undue movement or exposure. This will frequently necessitate modification of the firer's position to suit the cover.

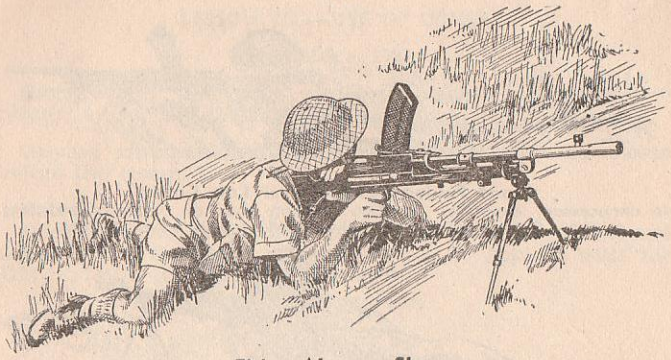
2. Explain and demonstrate mounting the gun for firing from various types of cover on a given line of fire (vide the following plates). Practise members of the squad after each demonstration, the remainder viewing the result from the front.

Using Bipod—Firing Over Low Bank
No unnecessary exposure. Position of body and legs to suit cover. (Right knee drawn up for support.) Muzzle clear of cover.

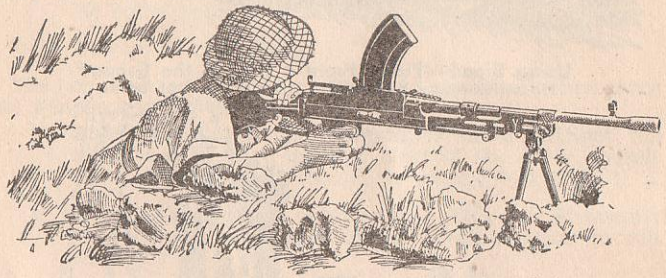
Bipod Folded—Firing Over Low Cover
No unnecessary exposure. Ejection opening clear of cover. Bipod legs folded. Gun rested on cover, balanced at point of bipod legs.

Using Bipod—Firing From a Fold in the Ground
No unnecessary exposure. Muzzle clear of cover.

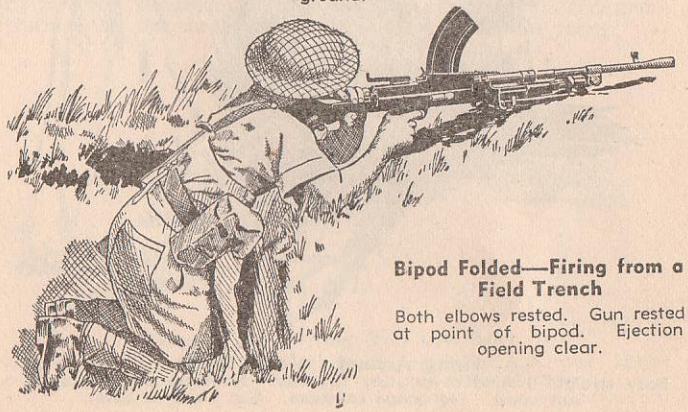
Firing Around Isolated Cover
Body straight behind cover, feet together. Carrying handle upright to suit cover. No undue exposure. Gun close to cover.



Firing Along a Slope
Position to suit cover. Bipod leg lengthened to suit slope. Sights upright.



Using Bipod—Firing From a Field Trench
Both elbows rested. Elbow rest widened to take bipod. Muzzle clear of ground.



Bipod Folded—Firing from a Field Trench
Both elbows rested. Gun rested at point of bipod. Ejection opening clear.

LESSON 11.—HANDLING (BIPOD)

Instructor's Notes.

Stores.—Gun with sling attached and magazine on. Magazine, drill cartridges, utility pouches in the "action" position, Holdall complete.

This lesson should be carried out on ground which provides natural and artificial cover.

Realistic targets should be indicated.

1. Introduction.

Explain that during movement the gunner must be prepared to operate the gun without assistance. The spare barrel will not be carried, and if the barrel becomes excessively hot, due to prolonged rapid fire, he must use his discretion, in view of the situation, as to whether the rate of fire can be reduced.

In defence, a No. 2 will be close beside him with magazines and Holdall to render every possible assistance. This includes changing barrels and conveying the section commander's orders to firer.

2. No. 1 acting alone.

i. Explain and demonstrate:—

(a) Position of Observation (used when the firer is watching his front).—On the order "DOWN," lie down quickly behind the cover and crawl forward so that the whole of the front can be seen without undue movement or exposure. The gun below cover, concealed.

(b) Position behind Cover (used when the Sec. Comdr. does not want the personnel exposed).—On the order "BEHIND COVER," the whole of the body and the weapon must be completely concealed behind the cover. If the order "WATCH YOUR FRONT" is given, get back into the "Position of Observation" again.

(c) Position of Readiness.—On the "range" being ordered, set the sights and mount the gun according to the cover: this must be done as inconspicuously as possible. Finally, cock the gun. Engage the enemy as indicated.

ii. On the order "STOP," lower butt and change magazine, if necessary. On the order "GO ON," continue firing as ordered.

iii. On the order "CEASE FIRING," unload the gun and place a full magazine on. Return behind cover and remain concealed, awaiting further order.

NOTE.—Should the gun be detached from the section, these actions will have to be carried out on the firer's own initiative. During later training, therefore, verbal situations only should be depicted by the Instructor, and the No. 1 should then be left to act for himself.

3. Give conditions of Test No. 5 (Handling).

4. Practise squad individually in the above positions and actions.

5. Practise squad individually behind various types of cover. Instructor indicates cover to be occupied and target to be engaged. Remainder of squad view from front and flanks, and are called on to criticise actions of firer.

6. Instructor demonstrates and explains how a No. 2 can assist the gunner (changing barrel, adjusting gas regulator, loading, etc.).

Practise squad in pairs, working as gunner and assistant in a defensive position.

LESSON 12.—HANDLING (TRIPOD)

Mounting and Dismounting Tripod

Instructor's Notes

Stores:—Tripod, gun with magazine on.

This lesson should be carried out on ground affording suitable cover, behind which the gun and tripod could be mounted for firing. When the gun and tripod are mounted, the squad should be taken to view the position from the enemy's point of view, noting concealment, camouflage required, etc. In the later stages of training, good practice can be obtained in the following manner:—

Detail two members of the squad to mount the gun and tripod behind cover, within an area. Remainder of squad to watch the area from a suitable distance in front. Instructor to comment on concealment, undue exposure, and time taken.

Names of parts will be dealt with as they occur (if not already dealt with in Lesson 6).

Introduction

Instructor explains para. 3, page 20.

Explain and demonstrate duties of No. 2.

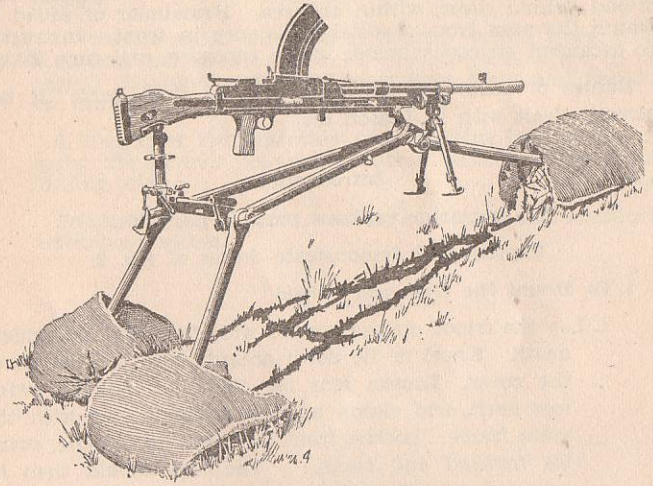
1. **To Mount the Gun and Tripod**

i. Lay the tripod on the ground with the front leg underneath. Kneel or lie down according to the nature of the cover. Loosen rear leg clamping handles, swing legs back, and clamp approximately in line with the main frame. Loosen front leg clamping handle, swing leg forward and clamp. The legs should then be adjusted to suit the particular type of cover being used, remembering that when the tripod is mounted the traversing arc must be horizontal from right to left. With experience it will be possible to mount the tripod without unnecessary loss of time to suit the type of cover being used. Loosen the necessary traversing stop, move it to end of arc and clamp. Loosen the traversing clamp handle, move elevating gear to centre of arc and clamp. Loosen elevating clamp handle, slide sleeve half-way forward and clamp. Raise to vertical position.

ii. **Duties of the No. 1.**—Disengage front and rear mounting pins. Place the front mounting pin housing on the mounting pivot and replace mounting pin. Attach butt to rear mounting with the rear mounting pin.

NOTE.—Detail one of the squad to act as No. 2.

Both numbers slide the gun and tripod cautiously forward. Obtain rough direction by moving the rear legs. Make any adjustment necessary. Ensure legs are firm in ground (when possible by stamping in) and all clamps tight. Use sandbags or sods of earth to ensure tripod does not move.



Gun Mounted to Fire Over Bank

Traversing arc horizontal. No undue exposure. Legs adjusted to suit slope. Sandbags or sods on legs. Muzzle clear of cover.

(a) Traversing arc horizontal.

(b) No undue exposure.

(c) Sandbags or sods on legs.

(d) Legs are adjusted to suit cover.

2. **Dismounting Gun and Tripod**

i. Both numbers slide the gun back behind cover and dismount in the reverse order. Ensure mounting pins are replaced and clamps left tight.

3. Practise squad in pairs, mounting and dismounting gun and tripod with reference to a specified line of fire and cover.

LESSON 13.—HANDLING (TRIPOD)

Firing From Tripod

Instructor's Notes

Stores:—As for Lesson 12.

1. **Aiming and Firing**

i. Order two members of the squad to mount gun and tripod with general reference to a target (or area) and cover.

Explain and Demonstrate:—

ii. Order "Load."—On the range being given, set the sights. On the target being indicated, aim the gun accurately with the aid of the traversing slide and elevating gear, clamping both and the elevating clamp nut when aim is accurate. The eye will be in the correct aiming position. Adopt any convenient firing position behind the gun with a minimum of exposure. (The butt need not be in the shoulder.)

iii. When firing between fixed limits, aim will be laid at each end of the target. Having aimed at one end of the target, the necessary traversing stop will be clamped in position before moving the elevating gear to aim at the opposite limit. Fire when ordered. When firing between fixed limits, irregular traversing should be employed.

NOTE.—On occasions it will be necessary to mount the tripod with the traversing arc on a slant in order to make the fire from the gun conform to the slope of the ground.

2. Practise squad in pairs in para. 1.

3. Practise squad in pairs in Lessons 12 and 13 complete. Instructor indicating target (or area) to be engaged and cover to be utilised.

LECTURE FOR N.C.Os—FIRING ON A FIXED LINE AND WITHIN FIXED LIMITS

1. A tripod is issued for each Bren on establishment. Normally, tripods are only used in defensive positions or for A.A. action from prepared positions.

2. The use of the tripod is twofold:—

i. To enable the gun to fire on a fixed line.

ii. To enable it to fire within the limits of a fixed arc. Apart from these uses, the gun will normally be fired from the bipod, because of the far greater flexibility with which it can engage targets in different directions when thus mounted.

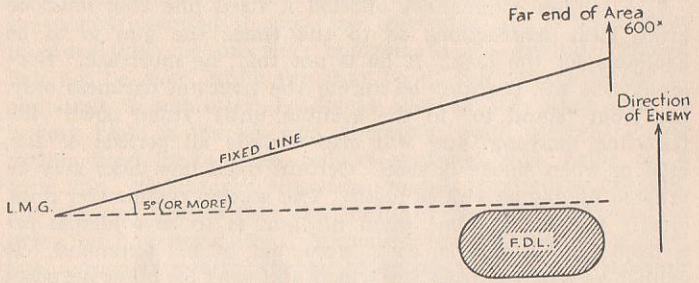
3. Firing on a fixed line implies that certain measures and preparations have been carried out during daylight, so that when darkness comes, fog descends, or the enemy used smoke, elevation and direction with the gun can still be maintained and its fire can be brought down on a previously selected line on the ground. With the L.M.G. these measures consist of mounting the tripod and clamping the elevating gear on the traversing arc in a fixed position, so that when the gun is mounted, its fire will fall on the previously selected line.

4. The method of laying a fixed line is given in Lesson 14. There are, however, additional factors which must be understood by all N.C.Os. down to section commanders. It must be first appreciated that the necessary fixed line tasks, and the guns which are to fire on them must be co-ordinated by battalion, etc., commanders as part of the complete fire plan. A section commander will merely be told that his gun is to carry out a fixed line role and what that particular task is.

5. **The Section Commander Has Certain Responsibilities.**—He must first of all ensure that the safety angle is maintained; no fixed line will ever be laid nearer to any position held by our own troops than an angle of 5 degrees; but it may be greater. It is possible that he may be given the exact line for the fire of the gun; this does not, however. absolve him from checking to ensure that the safety angle is being observed.

The line on which the fire of the gun is to fall having been decided, the section commander's next responsibility is to ensure that the gun is laid on to a point at the far end of this line, that is to say, at a point on the fixed line **opposite** the **far** end of the locality or area to be protected.

The sights of the gun must also be set for this range.



L.M.G. Protecting F.D.L.

The reason for this is that when firing on a fixed line with the L.M.G. **the whole of the dangerous zone,** as opposed to the beaten zone only, is used. (See S.A.T., vol. I, Pamphlet No. 1, Chapter 2, Theory). As to whether this is possible will, of course, depend to some extent on the conformation of the ground and the range at which the fixed line is being laid. The fixed line should be laid, if at all possible, to take advantage of the most suitable ground. A normal range for fixed line firing will be about 600 yards. At such a range, by laying on the far end of the line, the whole of the dangerous zone is applied.

The extreme importance of L.M.Gs. being accurately zeroed for elevation must also be stressed, for if a gun fires low much benefit of the above will be lost.

6. It should be appreciated that it is a principle that the foremost guns in a defended locality should not normally be given fixed line tasks. Should such foremost posts themselves be attacked, they will take the gun off the tripod and use it to protect themselves, thereby failing in their fixed tasks.

This is only human nature, and is hard to avoid. Fixed line tasks should, therefore, be given to guns which, as far as possible are protected by other positions to their front. In order to obtain the maximum benefit from the fire, all fixed line tasks should be enfilade ones. There will, of course, be exceptions to this such as a L.M.G. firing on a fixed line down a cutting or sunken road leading into the front.

7. A section commander allotted a fixed line task must be given clear instructions as to the times the gun is to be available for the task. If he is not told, he must ask. Normally this will probably be during the hours of darkness only, i.e., from "stand to" in the evening until "stand down" the following morning, and will also include all periods of fog, mist or when smoke is used. Certain fixed line tasks may be ordered by day as well as night. The section commander must clearly understand that when his gun is to be available for a fixed line task it is, as it were, out of his command. It cannot be removed from the tripod and used for other purposes under any circumstances.

8. A section commander must also be clear as to the signal calling for fire, and the rate and amount of fire he is to employ on such signal. This will be laid down in brigade, etc., orders. It is vital that when the call for fire is given the fire of guns on fixed line tasks is brought to bear instantly. It will be the duty, therefore, of the sentry to fire the gun at once without waiting for further orders.

9. Firing Within Fixed Limits

Guns in the foremost positions can often be suitably employed by firing within fixed limits of an arc to cover narrow approaches leading into their position in darkness, fog, etc., or they may be used for their own protection by being laid to traverse along an obstacle. Guns sited for coast and beach protection should normally be employed firing within fixed limits, a series of interlocking arcs of fire in enfilade being thus provided. Preparations are still necessary in daylight. The gun having been mounted on the tripod, is laid for elevation as required and the limits of the arc required to be traversed are fixed by the stops on the traversing arc.

Should the gun be used to protect its own post the aim should be low down on the wire obstacle. For beach defence the sights should, if possible, be set to 600 yards, and the aim laid for that distance, in order to get the maximum distance covered by fire taking advantage of the flatness of the trajectory up to that range. Thus in darkness or fog the gun can be fired irregularly in bursts within the limits of the chosen arc. It should be realised it may often be necessary to have the tripod mounted so that the traversing arc is on a slant in order that the fire may conform to the ground. Should this not be done, while fire may be at the correct height at one limit it will often be found that at the other limit it is very high in the air and, therefore, quite useless. Firing within fixed limits must not be confused with firing on a fixed line. Preliminary measures are still required by daylight, but the gun fires within the limits of an arc as opposed to firing on a definite line. Moreover, when firing on a fixed line a gun is nearly always being used to protect another locality. This does not necessarily follow when firing within fixed limits.

LESSON 14.—FIXED LINES

Instructor's Notes

Stores:—As for Lesson 12.

This lesson should be carried out on ground similar to that mentioned in Lesson 12. Describe a simple situation relative to the task and position of own troops.

1. Order two of the squad to mount the gun and tripod, with reference to the task.

2. Explain and Demonstrate:—

i. Using the gun sights, align on the edge of the defended locality, the safety of which is involved.

ii. Note the reading on the traversing arc, and lay off not less than 5 degrees. The fixed line must not be within the limit of 5 degrees of our own troops. It may be necessary to lay off a greater amount in order to get suitable ground for the line of fire and to avoid obstacles.

iii. With sights set at the range required, lay on the **far end of the area to be covered.** This is the fixed line for the gun.

iv. Clamp the elevating and traversing gear tight. Clamp both traversing stops firmly up against the traversing slide.

v. The "dangerous zone" as opposed to the "beaten zone," is used in fixed line firing.

vi. Great care must be taken that the tripod is not moved and that the elevating and traversing gear and traversing stops are all kept firmly clamped.

vii. Every man in the section should know the reading on the sights and on the traversing arc, and the point at which the gun is aimed.

viii. Should it be permitted to remove the gun from the tripod to resume its bipod role, this may now be done. It will be replaced on the tripod when required to take up its fixed line role. This should be done before dusk to enable the fixed line to be re-checked.

3. Practise squad.

CHAPTER IV.

SECTION HANDLING

LECTURE FOR N.C.Os.—SECTION HANDLING

General

1. i. The Bren L.M.G. is the principal weapon of the infantry and every man will, therefore, be trained to use it.

ii. The rifle is the personal weapon of the individual. It will be needed to augment the fire of the L.M.G. when required in an emergency, for local protection, and especially for "sniping" single enemy.

iii. Each section in the platoon is equipped with a L.M.G. The gun may be employed within the section under the direct control of the section commander or detached.

iv. The ammunition available in the platoon truck for the L.M.G. is 3,000 rounds, of which 700 rounds for each gun is in magazines, the remainder being in a box. The whole should be regarded as a platoon pool.

In Movement

2. i. The gun can be operated by one man, provided that ammunition is within reach. To ensure this, a second member of the section is required to maintain an adequate supply at the gun.

ii. During the attack sections may be divided into groups —the rifle groups and the L.M.G. group.

The rifle groups consist of:—

Section commander.

No. 1 rifleman.

No. 2 rifleman.

No. 1 bomber.

No. 2 bomber.

The L.M.G. group consists of:—

2 i/c section.

No. 1 Bren.

No. 2 Bren.

Each group can advance under the fire of the other, or the whole section can be used to cover the advance of another section or vice versa.

iii. The task of the section is to get on to its own objective, and although it may have to take up a fire position, it will be only temporary and the advance must be resumed at the earliest opportunity.

iv. The maximum use of available cover must be made.

In Defence

3. i. Within defended localities L.M.Gs. will be given arcs of fire covering their localities. Foremost sections will automatically engage targets directly threatening them and greater flexibility will be obtained by firing from the bipod. A long field of fire is not essential; a field of fire of 100 to 150 yards will suffice. In the foremost posts, therefore, guns will be given arcs of fire covering the approaches to their positions and will not normally be given fixed line tasks (see para. 6 of Lecture on Firing on Fixed Lines).

ii. Guns which are defiladed and protected from the front by the disposition of other sections will normally be given arcs for fire and fixed lines so that, should one gun go out of action there is another covering the same, or almost the same, ground from a different position. Alternative positions will always be selected and prepared for guns not on fixed line tasks.

iii. Concealment from ground and air is of the utmost importance.

iv. As sustained fire may be required, barrel changing may be necessary. The gunner will, therefore, require an assistant constantly at the gun, whilst, if additional ammunition is available, other members of the section will be required for filling magazines in addition to their other duties.

SECTION HANDLING (LESSONS 15 and 16)

4. i. This consists of training the section with the L.M.G. It will take the form of exercises designed to reproduce conditions of battle. The duties of all members of the section will be practised.

ii. The supposed direction of the enemy will always be indicated. In section handling the position of the instructor will be that of the section commander in battle until he has given orders. He will then resume the role of instructor and move about checking faults by questioning the section.

5. The section will normally fight equipped as follows:—

Sec. Comdr.—

Sub-machine gun.
6 S.M.G. magazines.
2 L.M.G. magazines.
Wirecutters.
Matchet.
Whistle.

(If "Thompson" S.M.G., weight will be approx. 65 lb.; a reduction in weight if either "Austen" or "Owen" S.M.G. carried.)

No. 1 Rifleman—

Rifle No. 3 (Sniper rifle).
Bayonet.
4 L.M.G. magazines.
50 rds. Mk. VII.

Approx. weight, 61 lb.

No. 1 Bomber—

Rifle No. 1.
Bayonet.
Discharger.
1 L.M.G. magazine.
2 No. 36 Grenades.
2 Smoke Grenades.
50 rds. Mk. VII.

Approx. weight, 60 lb.

No. 2 Rifleman—

Rifle No. 1
Bayonet.
4 L.M.G. magazines.
50 rds. Mk. VII.

Approx. weight, 61 lb.

No. 2 Bomber—

Rifle No. 1.
Bayonet.
Discharger.
3 L.M.G. magazines.
2 No. 36 Grenades.
50 rds. Mk. VII.

Approx. weight, 60 lb.

2 i/c Section—

Rifle No. 1.
Bayonet.
3 L.M.G. magazines.
2 Smoke Grenades.
50 rds. Mk. VII.
2 Utility Pouches.

Approx. weight, 61 lb.

No. 1 Bren—

L.M.G.
3 L.M.G. magazines in basic pouches.
Spare Parts Wallet.
50 rds. Mk. VII.

Approx. weight, 75 lb.

No. 2 Bren—

Rifle No. 1.
Bayonet.
4 L.M.G. magazines in basic pouches.
2 Utility Pouches.
50 rds. Mk. VII.

Approx. weight, 63 lb.

NOTES.—

i. S.A.A. will be carried in bandoliers if available.

ii. Equipment and weapons carried should be varied to suit the particular operation in hand. For patrol work and other special duties, considerable modifications will be necessary.

iii. The above figures regarding arms and ammunition are given as a guide, i.e., dependent on the situation.

iv. During movement the immediate S.A.A. supply is limited to that carried by the section. Normally an individual should not carry more than four magazines except for short distances. In addition, the 350 rds. for the rifles can, in an emergency, be filled into the magazines.

v. The following are the duties in connection with ammunition supply:—

(a) No. 1 will use one of the three magazines which he is carrying for the initial loading of the gun. The two remaining magazines will be kept as a reserve for use in an emergency.

(b) No. 2 will at all times keep the gun supplied with ammunition. He will place himself as near the gun position as cover will allow, so that he can carry out his duties of ammunition supply with the minimum movement and exposure, or, if required, act as rifleman. He will collect full magazines from other members of the section and place them in his set of utility pouches within reach of No. 1. As further ammunition is required, No. 2 will collect more magazines in the other set of utility pouches. Empty magazines will be redistributed by him to the section.

vi. Magazines should be refilled as opportunity offers.

6. Sections should be frequently exercised in Section Handling (Movement and Defence) under their commanders. The ground for section handling must be constantly changed and training made progressive.

LESSON 15.—SECTION HANDLING (MOVEMENT)

Instructor's Notes

Stores:—

i. Gun with sling and magazine on, magazines, wallet, utility pouches. Magazines should be in the equipment of the section.

ii. Fatiguemen with rifle and blank S.A.A.

iii. Fatigueman with dummy screen, or silhouette figure targets placed in position.

The lesson should be carried out on rough ground.

It is essential that if fatiguemen are used they must be fully rehearsed and that the instructor should have his situations prepared. Suitable targets may be used in lieu of fatiguemen.

The instructor should be fully conversant with the lecture on section handling.

He should criticise the actions of the riflemen first. When criticising the actions of the gunner, the remainder of the section should be called to the side of gun.

Should the gun be detached from the section the riflemen should follow in order to benefit from any criticisms made by the instructor on the actions of the gunner and/or his assistant. The instructor should bring out faults made by questioning the whole section.

1. Explain:—

i. The purpose of this lesson is to practise all members of the section in their duties during movement. All members of the section will be practised by interchange of duties.

ii. General Notes, para. 6, as applicable.

iii. The organisation of the section. (Para. 5, pages 36, 37.)

2. Instructor, acting as section commander, gives a simple situation dealing with the whereabouts of the enemy, the general line of advance, sections on right and left.

3. Methods of Conducting:—

The section advances over the area selected for the exercises in a formation suitable to the ground and tactical situation

Signal for a pre-arranged situation to be presented and order the section to take cover.

Give a fire control order, suitable for the target, and one or two switch targets.

Check and comment where necessary on the actions taken by each rifleman.

With riflemen round the gun, deal with the actions of the gunner and No. 2.

Re-allot duties within the section and repeat as necessary.

4. As proficiency increases, more difficult situations should be introduced, including:—

Ordering gun forward, covered by riflemen.

Gun covering riflemen forward.

Gas.

Casualties (this should not be neglected as it calls for quick thinking and initiative on the part of the individual, particularly when the gunner and section commander become casualties).

This lesson will require frequent repetition. It should never be carried out by the same section over the same ground.

LESSON 16.—SECTION HANDLING (DEFENCE)

Instructor's Notes

Stores.—Gun, with magazine on, holdall complete, magazine in equipment, S.A.A. box, utility pouches, tripod, camouflage fatiguemen or suitable targets.

The ground must be selected beforehand and the situations prepared.

Attention is drawn to Instructor's Notes, Lesson 15.

1. Explain:—

The purpose of this lesson is to exercise the section in its duties during defence. This lesson must be continually varied and the set sequence given in paras. 3, 4, 5 below, not adhered to slavishly.

The changes in the duties of the various numbers of the section are as follows:—

No. 2 will be in a position close to the gun from which he can assist No. 1 in every way possible.

Remaining numbers' duties are the same as for movement.

2. Instructor, acting as section commander, reconnoitres position. Points out gun position and alternative position. Orders section to occupy position and indicates direction of enemy, neighbouring sections, arc of fire and reference points.

3. Bipod Role

Orders section to stand down. Posts sentry and arranges for pre-arranged situation to be presented. Gives fire control order. Checks and comments briefly on the actions of each member of the section.

4. Tripod Role and Fixed Lines

Explain that, after an action as above, orders are received to prepare the gun for fixed lines. Details of the fire plan and the position in which the gun is to be mounted.

Point out the defended locality or area to be protected and the position in which the gun is to be mounted.

No. 2 sets up the tripod.

As section commander, order No. 1 to lay the fixed line as taught, in the meantime questioning the section on fixed lines.

Explain that it is advisable to complete all arrangements just before dark, so that the aim and safety angle can be checked. Features which are likely to stand out in the failing light, and which may assist in maintaining direction, must be noted during daylight.

On the call for fire, rapid and slow fire will be employed as ordered in brigade, etc., orders.

To be effective, fire must be produced immediately the signal calling for it is given. Arrangements should be made to replenish at once ammunition so expended.

Instructor explains that it is now dusk, and orders section to "stand to." Instructor checks fixed line and safety angle.

Orders section to stand down, explains that darkness has fallen and posts two sentries. Signal for pre-arranged situation to be presented.

Check and comment, with special emphasis on the following:—

Action of sentries.

Was fire opened immediately?

Was the correct type of fire used?

Action of the section.

NOTE.—As fire must be opened immediately when a call for fire goes up, one sentry should perform this duty at once.

5. **Tripod Role in Forward Posts,** i.e., guns not protected from the front:—

Explain that in the most forward posts guns will be given arcs of fire covering the main approach to their position. At night or in conditions of bad visibility where the main approach is narrow, guns can be suitably employed by firing from the tripod, using the traversing stops. In this role, fire will be under the control of the section commander.

Point out the approach or arc on which fire is to be brought to bear, indicating the limits of the traverse.

No. 2 sets up the tripod.

As section commander, order No. 1 to lay on the approach or limits of arc.

Explain that the section commander will decide, according to the situation, whether the gun will remain on the tripod after dark or be used in the bipod role until he orders it on to the tripod.

TESTS OF ELEMENTARY TRAINING

In each of the following Tests the man will be allowed three attempts and, to pass, two must be correctly carried out within the time limit, where this exists.

Name of Test and Stores	Conditions Before Test	Time	Remarks
No. 1 (Magazine Filling) Magazines. — 28 rounds in 6 charges.	Loader in sitting or kneeling position—magazines on the ground—ammunition in convenient position but not in the hands.	40 seconds from command "Go" until magazine is correctly filled.	
No. 2 (Loading).—Gun and one filled magazine.	Firer lying on ground—gun unloaded—butt on ground—magazine in pouch equipment—change lever at "A" or "R."	10 seconds from command "Load" until left hand returns to butt.	
No. 3 (Aiming and Firing). Gun. Aiming disc.	Firer lying behind gun—butt on ground until the order "Fire" is given—gun cocked—change lever at "Safe"—no magazine on gun.	Nil.	Firer will be given range and "Fire," or "Bursts—Fire." Maximum alteration of sights 400 yds. Aiming disc held one yard in front of gun. Height of disc to be varied for each aim. To pass the test all actions, including sight setting, must be carried out correctly.
No. 4 (Immediate Action by No. 2). Gun, full magazine. Any suitable aiming mark. Wallet.	Instructor will order "Load" and a fire order to engage the target, then—"Gun is firing all right."—"Gun STOPS." On No. 1 having applied I.A. the instructor will order: "Gun fires one or two rounds and stops again."	35 seconds from the command "Stops" until No. 1 fires, having altered the regulator.	Instructor ensures that the gas regulator is at No. 2 hole at the beginning of the test. Time will be taken from the first "Gun Stops" until "Gun is firing all right" at the end of second I.A. The combination tool must be used from the wallet.
No. 5 (Handling).—Gun with magazine on. Wallet. Magazine in Utility Pouches.	No. 1 acting alone, will be tested in Lesson 11 complete behind various types of cover.	Nil.	Serious faults, e.g., incorrect mounting of gun, over exposure and incorrect handling will entail failure.

APPENDIX I.

SECTION HANDLING—MOUNTED UNITS (MOVEMENT)

Instructor's Notes

A section, mounted and equipped, is required for this lesson.

1. **Duties.—**

Explain:—

Section leader—selects the position for his section, carries the first supply of ammunition from the pack horse and places it within reach of No. 1 when the gun is in position.

No. 1—carries the gun, fires and maintains it in action.

No. 3—horse-holder.

Nos. 4 and 5—scouting and protective duties. When required, No. 4 will act as an ammunition link between the gun and pack horse.

No. 6—Pack leader.

2. **Loads.—**

Explain and demonstrate:—

No. 1—Light machine gun carried in two parts, i.e., the body and bipod in a bucket on the off side, the barrel in a detachable case on the near side.

Ammunition—3 magazines in a bandolier on the man.
4 magazines (reserve) in two wallets on the front arch of the saddle.

No. 2 (section leader)—Spare barrel and detachable case on near side.

Ammunition—As for No. 1.

Pack horse Top load—the tripod.
Near side—4 magazine carriers, each containing 6 magazines.
Off side—4 magazine carriers, each containing 6 magazines.
Total: 48 magazines = 1440 rounds.

Total ammunition carried in the section: 62 magazines = 1860 rounds.

The normal source of supply to the light machine gun will be from the pack horse. The ammunition in the wallets on the saddles of the section leader and No. 1 will be kept as a reserve; that in the bandoliers should be used for the initial supply when speed in opening fire is essential. When ammunition from the bandolier is expended, it should be replenished from the pack at the earliest opportunity.

3. **Fitting of Light Machine Gun Equipment.—**

No. 1.—i. Fit the gun bucket as high up as possible on the off side, by passing the strap round the rear arch of the saddle. Pass the surcingle through the loop on the arm.

ii. Fit the barrel case on the near side in a similar manner as above.

iii. Place the wallets over the front arch of the saddle. The brass link on the front arch attachment passes through the slot in the connecting band and is secured by the releasable strap. The wallet straps are passed through the slots and Ds on the front of the saddle and buckled round the wallets.

No. 2.—Fit the spare barrel case and wallets as in ii. and iii. above.

Pack horse—Place the tripod on the tree, traversing arc to the front and clamp.

Suspend 4 magazine carriers on the near side and 4 on the off side of the pack saddle by the Ds Secure as follows:—

Top Rear.—Pass through the loops on the pannels and through the fairway of the rear suspenders. Buckle round the magazine carriers which are attached to the hooks of the pack-saddle by Ds.

Top Front.—Pass through the loops on the pannels and through the loops at the ends of the leather fitting which is attached to the cross-bar of the tree. Buckle round the magazine carriers.

Bottom.—Pass through the loops on the pannels and buckle round the magazine carriers.

4. Practise squad in fitting equipment.

5. **Mount.**—Explain and Demonstrate:—

Before mounting, No. 1 will remove the barrel from the gun, place the body in the bucket and the barrel in the case. The body must be pushed fully into the bucket.

6. **Action from Pack.**—Explain and Demonstrate:—

i. On the command "For action—Dismount," the section dismounts and hands over its horses as taught in Cavalry Training.

ii. **Section Leader** removes two top magazine carriers from the off side of the pack horse, selects and indicates the gun position.

iii. No. 1 removes the gun body from the gun bucket and barrel from its case, assembles the gun clear of the horses and doubles with the gun to the gun position, as indicated by the section leader.

NOTE.—From this point onwards action will be as taught in Lesson 11.

7. **On Pack.**—Explain and Demonstrate:—

On the command "On pack," the led horses are brought up and No. 1 removes barrel from the gun and places it in the case, and the gun body in the gun bucket.

Section Leader returns two magazine carriers to the pack horse and orders the section to mount. Before moving off he will ensure that all equipment is properly secured to the pack saddle.

8. Practise squad "Action from pack" and "On pack."

SECTION HANDLING—MOUNTED UNITS (DEFENCE)

Instructor's Notes

As for Lesson 15

1. Explain that, when action involving the use of the tripod is considered necessary, the following additional duties to those taught in the previous lesson will be carried out. Explain and demonstrate each in turn—On the order "For action (tripod)—Dismount":—

i. Section leader, in addition to carrying ammunition to the gun position, takes the spare barrel with him.

ii. No. 1 acts as taught in the previous lesson and mounts the gun on the tripod (Lesson 12).

iii. No. 3—Horse holder.

iv. No. 4 removes the tripod from the pack horse and sets it up as directed by the section leader and assists No. 1 at the gun.

v. No. 5 takes two magazine carriers from the pack horse and places them at the gun position and becomes available for protective duties or to act as an ammunition link if required.

2. On pack.—

Explain and Demonstrate—

i. Section leader and No. 1 act as taught in the previous lesson.

ii. No. 4 dismounts tripod and replaces it on pack horse and, with the assistance of No. 5, is responsible for returning all magazine carriers to the pack horse.

Before the section moves off, the leader will ensure that everything is properly secured to the pack.

3. Practise squad "For action (tripod)—Dismount" and "On pack" by word of command.

APPENDIX II.

TRIPOD—ANTI-AIRCRAFT

Certain units, and sub-units, are concerned particularly with the use of the Bren for static anti-aircraft defence.

The following details, read in conjunction with S.A.T. Pamphlet No. 6, 1942, cater for their requirements in that regard:—

Instructor's Notes

Stores.—Gun, tripod, magazines with drill cartridges, one rifle.

1. Explain and Demonstrate:—

The anti-aircraft adjustment of the tripod—

i. Resting the tripod on its side, withdraw one half of the anti-aircraft leg from one of the tubes and rotate the corresponding leg of the tripod in prolongation of the frame and clamp it.

Reverse the tripod and repeat with the other side.

Raise the tripod, engage the top half of the anti-aircraft leg in the anti-aircraft catch: assemble the lower portion with the shoe upwards.

Raise the front leg of the tripod to a vertical position and clamp it.

Loosen the extension clamping screw and adjust the extension so that the stud is clear of the catch.

ii. Holding the gun, carrying handle with left hand and small of the butt with right hand, and keeping the butt slightly above the horizontal, hook the mounting pin into the anti-aircraft mounting socket, making certain that it is fully engaged.

No undue force is to be used, nor will the gun be allowed to swing down under its own weight.

(NOTE.—Disregard of any of these instructions may result in a broken socket.)

iii. Dismount gun and tripod in reverse order.

iv. Demonstrate the use of a rifle in lieu of the anti-aircraft leg. Explain that this method will ONLY be utilised when the A.A. leg is not available.

v. Practise squad in above stages.

2. **Handling**

i. Instructor explains that the gun will always be loaded, sights set at "500" and the carrying handle clamped to the gun, magazines close to the gun. He points out the arc of fire and the positions of other guns in the area.

ii. Instructor orders mounting to be erected in a suitable position consistent with available cover and possible situation. Two numbers are required to function, i.e.:—

No. 2—erection of the tripod and ammunition supply.

No. 1—place magazine on gun; place gun on tripod (assisted by No. 2); load, adjust sights to 500; adjust carrying handle.

NOTES.—

No. 1 will take the initial magazine from his pouch.

No. 2 will hold a magazine in readiness, taken from his pouches or magazine carrier.

No. 1, in holding the gun, will hold the pistol grip with the right hand, with the left hand on the carrying handle. His legs should be fairly well apart and the body well balanced. He should raise the front leg extension as necessary to engage a target. Care must be taken not to cross his legs in moving around the mounting, i.e., when following a target.

iii. Instructor, acting as the No. 1, explains and demonstrates the actions necessary on—

Aircraft Action	As per Lesson 7 (Anti-aircraft Handling), Pamphlet No. 6, 1942 (modified from "Hosepipe" method).
Aircraft—Front, etc. ..	
Rapid Fire	
Changing Magazines ..	

Stop (on this command, if it is not followed by a new direction, magazines will be changed and the change lever set to "Safe."

iv. Practise squad in pairs in the above actions, by word of command.

v. "Cease Firing"—

Explain—on this command, the gun will be unloaded and the gun and tripod dismounted as in para. 1, iii.

Aircraft Action

Body balanced. Feet well apart. Right hand at pistol grip. Finger on trigger. Left hand gripping adjusted carrying handle. Tripod at suitable height for firer. No. 2 with magazine ready.

Use of Rifle in Lieu of A/A Leg

APPENDIX III.

DIFFERENCES BETWEEN Mks. I and II BREN L.M.G.

1. All the main groups, i.e., barrel group, bipod, butt group and piston group, are interchangeable.

2. The following components are NOT interchangeable:—

Flash eliminator and foresight block.

Gas block.

Backsight assembly.

Legs, bipod.

Butt plate.

Caps, tube, return spring (Mk. I).

Nuts, tube, return spring (Mk. II).

Nuts, stem, strap, butt (Mk. I).

Catches, butt plate (Mk. I).

Springs, detent nut retaining butt (Mk. II).

Swivels, butt.

Brackets, butt, mounting pin, rear.

Butts.

Buffer and spring, butt plate (Mk. I).

Pins, axis, sear.

Screws, pistol grip.

Grips, pistol.

Pins, hinge, leg, bipod (Mk. II).

Handles, cocking.

Protectors, foresight.

Triggers Mk. II, can be used with Mk. I Tripping Lever, but Triggers Mk. I cannot be used with Mk. II Tripper Lever.

3. The following details are a guide to the variations between the two Marks of guns:—

Butt.—Mk. II, straighter shape and wider at plate, Butt plate fitted with a top curve, to fit against firer's shoulder. Return spring held by tube cap, which is retained by a detent and spring. Sling swivel of rifle pattern.

Cocking Handle.—Shaped differently to Mk. I and does not fold back. Shorter.

Body.—Shield has two projections to guide barrel. Has no guide way for positioning barrel.

Barrel.—No barrel sleeve. Flash eliminator screwed and pinned on to front end of barrel. Foresight, mounted on flash eliminator, about 1½ inches nearer muzzle end of barrel. No guide rib on barrel.

Backsight.—Aperture sight of Lewis pattern.

Bipod.—Non-extendable legs. Shoes with spikes. Each leg folds independently. Sling fits to cross member of bracket.

Scale of Distribution (continued)

Light A.A. Regt. Wkshop, Sec. A.E.M.E.	1
L. of C. Area Workshop—	
Queensland	4
N.S.W.	6
Victoria	5
S.A.	2
W.A.	3
Tasmania	2
N.G.	2
M.T. Wkshop, A.E.M.E.	2
L.A.D., A.E.M.E.	1
Terowie Trans-Shipment Centre	1
Adv. Reinft. Def. Coy. (Inf.)	3
An Indep. Coy.	30
L.H.Q. Defence Coy.	12
H.Q. Def. Pl.	3
Sydney Fxd. Defs.	22
Torres Strait Fixed Defs.	7
Moresby Fixed Defs.	3
Hobart Fixed Defs.	3
Brisbane Fixed Defs.	7
Townsville Fixed Defs.	4
Kembla Fixed Defs.	3
Newcastle Fixed Defs.	10
Port Phillip Fixed Defs.	8
Fremantle Fixed Defs.	16
Adelaide Fixed Defs.	2
Albany Fixed Defs.	2
H.Q. Darwin Frtss. Area	1
Jervis Bay Fxd. Defs.	2
Darwin Fxd. Defs.	3
A.A.S.L. Sec. Frtss. Engrs.	3
Gun Station	3
H.Q. Light A.A. Regt.	2
A.A. Bty. R.A.A.	3
Lt. A.A. Bty. R.A.A.	17
H.Q. A.A.S.L. Coys., R.A.A.	29
Hy. A.A. Bty. (Non-Motile)	
Wkshop Sec. A.A. Defs. A.A. O.C.	1
A.A.S.L. Wkshop Sec. A.A.O.C.	1
Lt. A.A. Bty. Wkshop Sec.	2
Lt. A.A. Regt. Wkshop Sec.	2
Trg. Depots—	
One per Instructor.	
R.M.C. and S.S.	150
S.A.S.	200
O.C.T.U.	200
School of M.I.	3
School of Radiophysics	5
School of Arty. (Fd. Med. Svy.)	50
School of Arty. (A.A.)	25
School of Arty. (Tk.A.)	10
A.F.V. School	100
L.H.Q. School of Mech.	21
L.H.Q. Camfig. Development and Trg Centre, R.A.E.	13
L.H.Q. School of A.A.S.L.	12
School of M.E. (Fd.)	50
Bomb Disposal School	6
School of Sigs.	30
Gas School	6
School of P. & R.T.	5
A.A.S.C. School	20
A.A.O.C. School	30
E.M.E. School	20
Provost School	50
Joint Overseas Ops.	50
Tactical School	50
L.H.Q. Trg. Centre (JW)	100
Army Schools	300
Corps School	200
Force Schools	100
L. of C. Area, Junior Leaders School	25
V.D.C., 1 per officer.	
Cadets 1 per officer.	